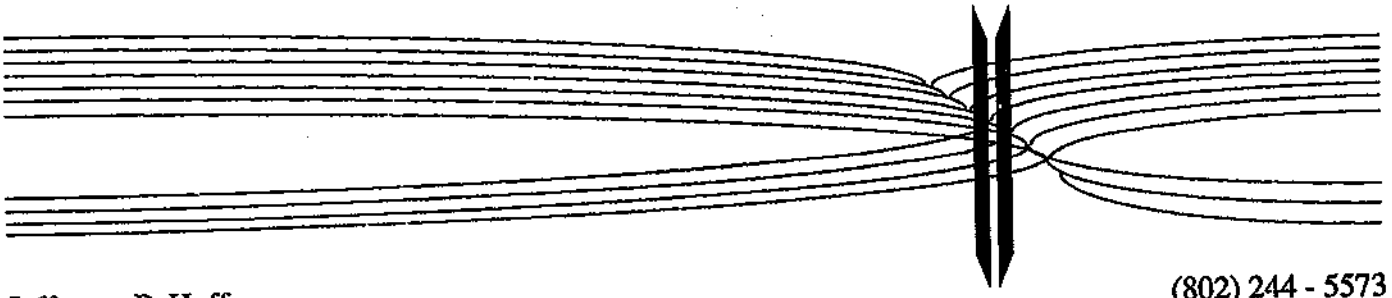
REPORT ON HYDROGEOLOGIC INVESTIGATION
MID-TOWN PLAZA MOBIL
MILTON, VERMONT

FEBRUARY, 1994



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Hydrogeologic Investigation
Mid-town Plaza Mobil, Milton, Vermont

February, 1994

Prepared For:

S.B. Collins, Inc.
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1.0 BACKGROUND AND SITE DESCRIPTION

1.1 Background

S.B. Collins, Inc., operates a Mobil station at the Mid-town Plaza in Milton, Vermont. As part of a recent renovation, four USTs were excavated and removed from the site. Three 10,000-gallon gasoline USTs and one 10,000-gallon diesel UST were removed on August 17, 1993. The tanks were in use for approximately 11 years, and passed leak-detection tests six weeks prior to their removal (report on file with the State). During excavation and removal of the gasoline tanks, the surrounding soils were screened with a photoionization detector (PID). Although no holes were found in the tanks, elevated PID readings were detected in soils surrounding the gasoline tanks. Laboratory analysis of soil samples revealed the presence of MTBE and BTEX compounds, indicative of historical releases of gasoline. Additional information concerning the tank removals is summarized in an initial site assessment report, which is included in Appendix A.

The Vermont Department of Environmental Conservation's Sites Management Section (SMS) requested that an investigation be performed to define the nature and extent of contamination at the site. The SMS letter, and scope of work for investigation are included in Appendix A.

1.2 Site Description

The Mid-town Plaza Mobil (site) is located in a commercial setting along US Route 7 in Milton, Vermont. Figure 1 presents a site location map. The site includes the Mid-town Plaza and the Mobil gasoline station/mini-mart. The site is bounded by Route 7 on the west and Fairfield Street to the north. A vacant lot borders the eastern perimeter of the site, and the Milton Professional Center borders the southern perimeter of the site. Figure 2 presents a site vicinity map.

The site is situated on the eastern margin of the Champlain Lowland, with the Green Mountains to the east. The topography of the site is level, and elevation at the site is approximately 350 feet above mean sea level (MSL). Major surface-water features in the region include Arrowhead Lake and the Lamoille River, which are located about one mile north and northeast of the site. The southward-flowing Malletts Creek is located about 3000 feet east of the site. Smaller unnamed streams are shown on Figure 1 and include

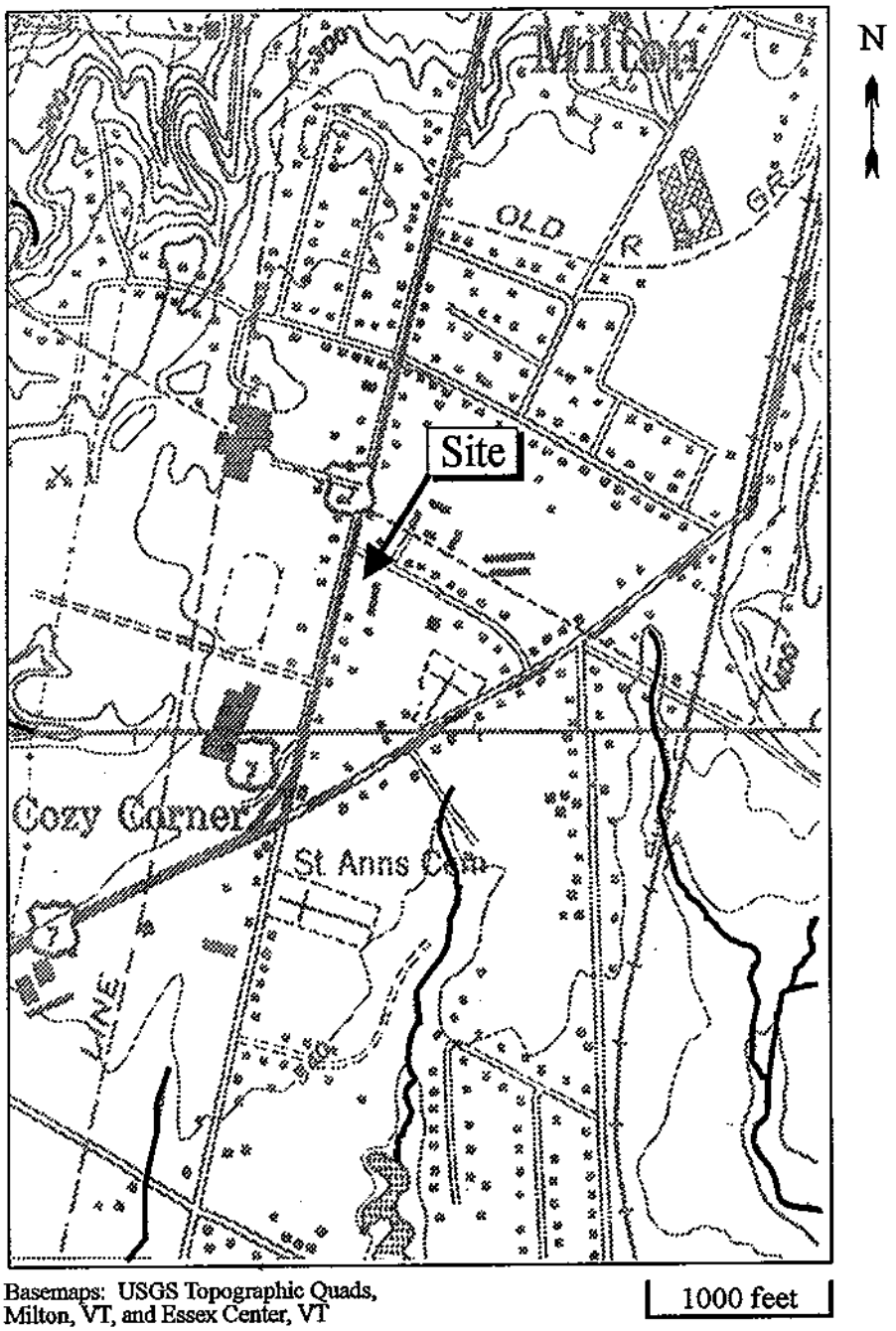

FIGURE 1
Site location map, Mid-town Plaza Mobil, Milton, Vermont.

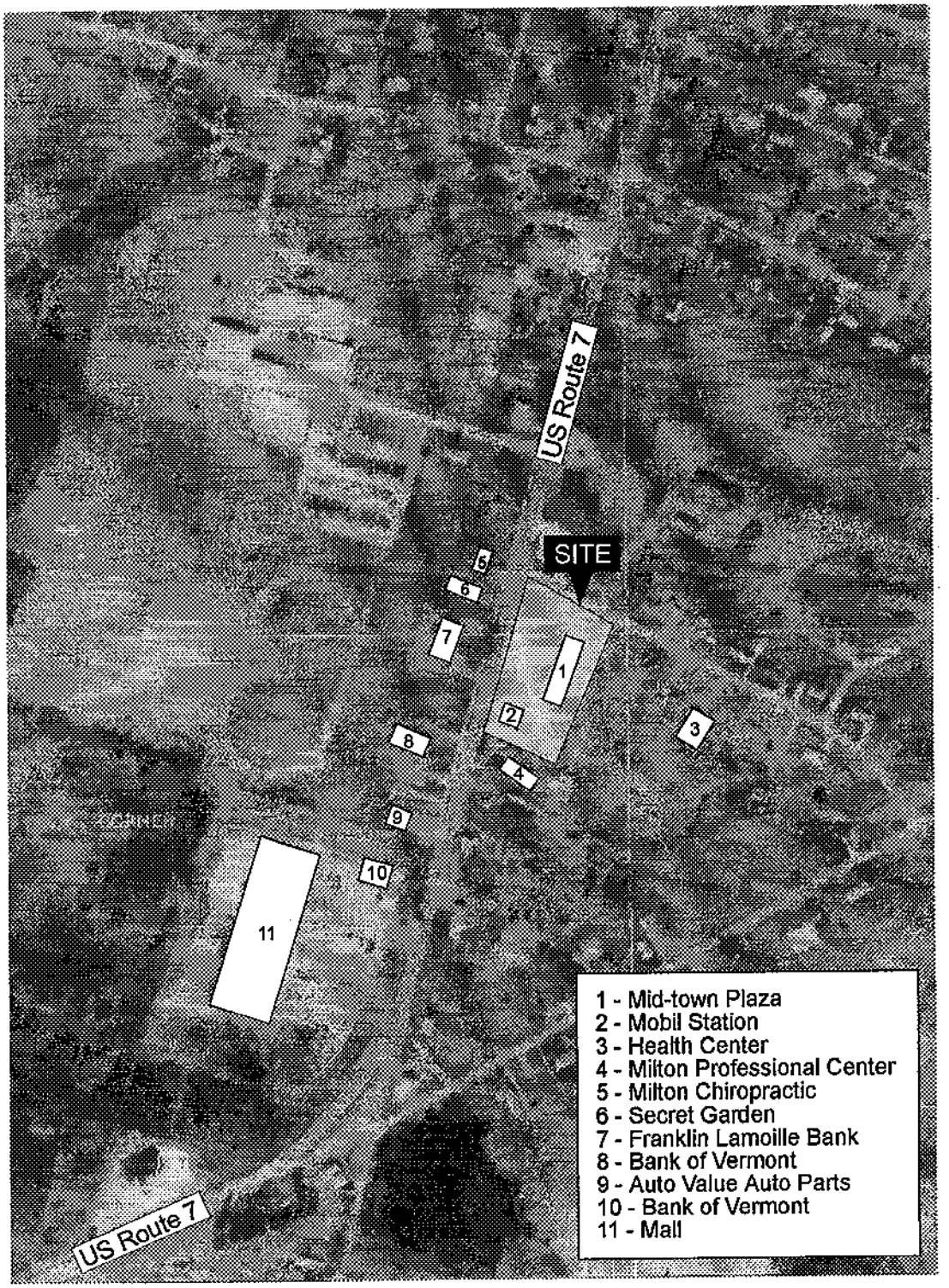

FIGURE 2
Vicinity map, Mid-town Plaza Mobil, Milton, Vermont.

three southward-flowing streams originating south of the site. The nearest of these three streams is about 1000 feet southeast of the site. Each of the these three streams originate at an approximate elevation of 340 feet above MSL. Another stream originates about 1500 feet southwest of the site, behind the Mall complex. This stream originates at an elevation of about 280 feet above MSL and flows northwestward toward the Lamoille River.

The surficial geology is mapped as pebbly marine sand on the Surficial Geologic Map of Vermont (Doll, 1970). Underlying bedrock is shale according to Stewart's (1974) generalized bedrock geologic map. Well logs for selected water wells in the vicinity (south of the site) are included in Appendix B. Approximate well locations are included on a site location map in Appendix B. The water well logs indicate an extensive deposit of unconsolidated material above bedrock. At least three unconsolidated units are represented; a surficial layer of sand to depths ranging from 10 to 160 feet, a layer of blue clay to depths ranging from 60 to 230 feet, underlain by water-bearing sands and gravels, and glacial till. Depth to bedrock ranges from 98 to 304 feet, and is reported as limestone, shale, and slate. About half of the wells included in Appendix B are completed in the water-bearing sands or gravel present above bedrock.

2.0 FIELD INVESTIGATION PROCEDURES

2.1 Monitoring Well Installation

Seven groundwater monitoring wells were installed at the site during two field efforts. Five wells were installed on November 1-2, 1993. Two additional wells were installed on December 17, 1993. Borings were advanced using 4.25" ID hollow-stem augers. Split-spoon soil samples were collected to observe soil conditions and to screen samples for contamination with a PID. Both split-spoon samples and cuttings returned on the auger flights were visually examined and described in the field. Soil samples from the split spoons were placed into glass jars for headspace analysis using a PID. The PID was also utilized to detect zones of contamination during auger advancement, and for health and safety monitoring.

The monitoring wells were constructed with 10-foot sections of factory-slotted PVC screen (0.020-inch) and PVC riser. Wells were constructed so that approximately five feet of screen remained above the water table to enable the detection of floating petroleum, and to account for water-table fluctuations. The well screens were backfilled with coarse sand as the augers were retracted. The sandpack was extended about two feet above the top of the screen. A layer of granular bentonite was placed on top of the sandpack. Protective manhole covers were cemented into place around each well. Wells MW-1 through MW-5 were developed using an air-displacement pump. Geologic logs and monitoring well construction details are provided in Appendix C.

Land surveyor Steven Brooks of St. Albans, Vermont, was contracted to provide a site basemap and elevations of the monitoring wells. Elevations were obtained at each well for ground surface and the top of the 2-inch PVC riser. Elevations were measured relative to 100.00 feet assigned to a benchmark. Figure 3 presents the site map.

2.2 Groundwater Sampling and Analysis

The first five monitoring wells were sampled on November 9, 1993. Monitoring wells MW-6 and MW-7 were sampled on December 20, 1993. Prior to sampling, well headspace (PID), water level, and free-product measurements were taken in each well. The monitoring wells were bailed of at least three well volumes prior to sampling. Samples were collected using a Teflon™ bailer. Samples were transferred from the bailer

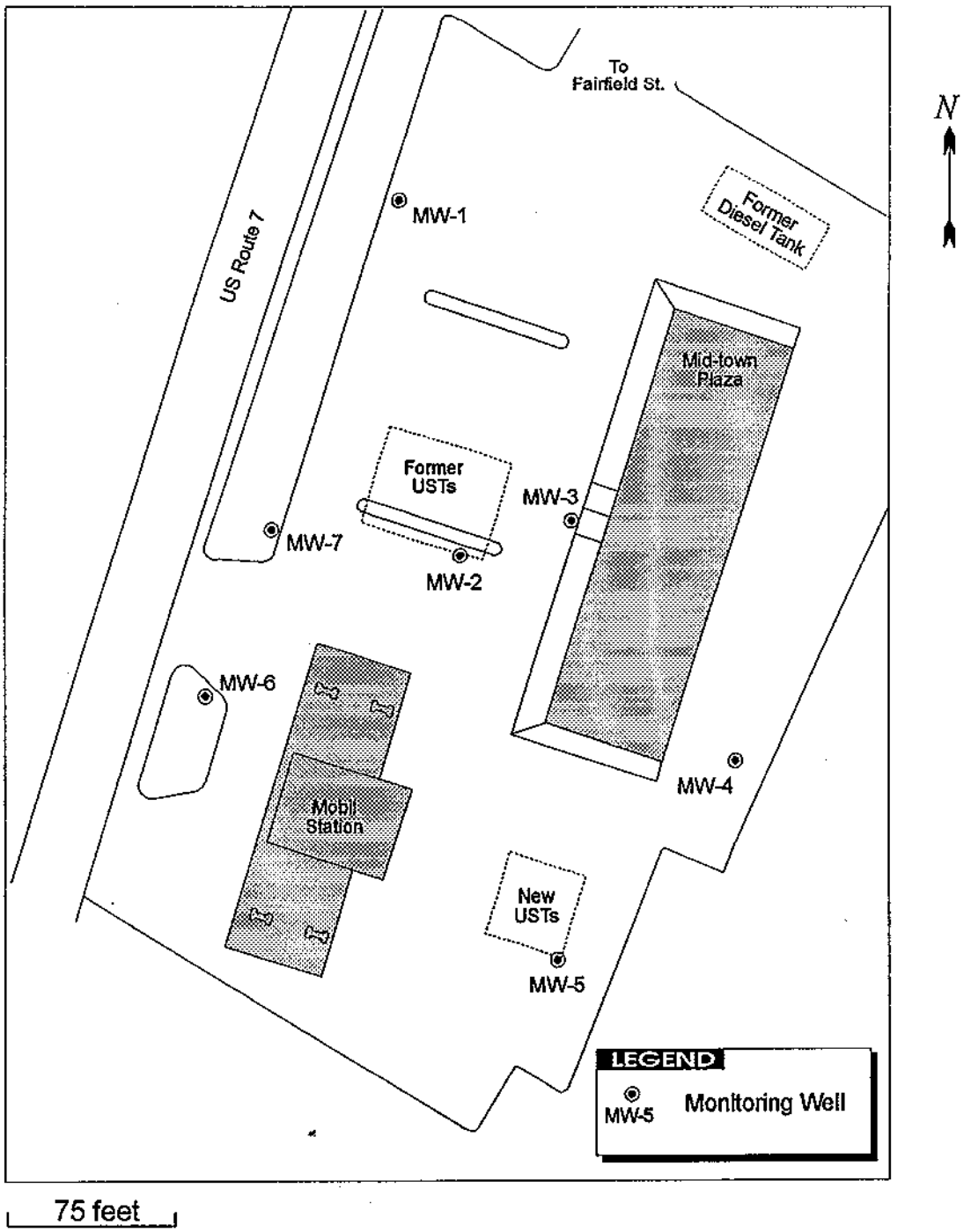

FIGURE 3
Site map, Mid-town Plaza Mobil, Milton, Vermont.

to laboratory-supplied 40 mL vials containing hydrochloric acid, using a bottom-emptying stopcock to minimize sample agitation. Samples were labeled and placed into a cooler with ice. Sampling equipment was decontaminated between each well using an Alconox™ scrub/tap water rinse/methanol rinse/distilled water rinse. All purge water generated during sampling was containerized on site in a 55-gallon drum.

Sampling proceeded from "clean" to "dirty" based on observations during well installation and well headspace PID readings prior to sampling. Quality assurance/quality control samples included a trip blank supplied by the laboratory, a field/equipment blank, and a blind duplicate collected during the November 9, 1993 sampling event. The trip blank was transported to the site, handled the same as the other samples, and returned to the laboratory for analysis. The duplicate sample was collected at well MW-5 and was labeled MW-A. A field/equipment blank was prepared using laboratory-supplied analyte-free water to gauge the effectiveness of the decontamination procedure and possible sample exposure to air-borne contaminants. The December 20, 1993 sampling event included a trip blank.

The groundwater sampling events were documented on a field data sheet and a laboratory chain-of-custody. Samples were hand-delivered to Scitest Laboratory Services, Randolph, Vermont, and analyzed for methyl-tert-butyl-ether (MTBE) and benzene, toluene, ethylbenzene, and xylenes (BTEX) using EPA SW-846 Method 8020. The field data sheet, analytical reports, and chain-of-custody are included in Appendix D.

2.3 PID Measurements

A Photovac MicroTIP HL-2000 photoionization detector, equipped with a 10.6 eV bulb, was utilized to monitor for the presence of organic vapors during field investigations. The PID was utilized during drilling to screen for contamination and to perform headspace analyses on soil samples. Measurements of well headspaces were also taken during water-level measurements and groundwater sampling events. Prior to each days use, the PID was calibrated with an isobutylene standard, following the manufacturer's operating procedures.

3.0 RESULTS

3.1 Hydrogeologic Setting

Surficial Geology

Descriptions of the split-spoon samples are included on the geologic logs in Appendix C. Well-sorted and well-rounded medium and coarse-grained sands predominate across the site to a depth of approximately 15 feet. Lower-permeability finer-grained sands, silty sands, and silt loam were encountered below 15 feet in some of the boreholes, although no laterally-continuous lower-permeability layer was encountered. Based on the observed stratigraphy, the effective hydraulic conductivity for the site is likely in the range of 10^{-2} to 10^{-3} cm/sec (2.8 to 28 ft/day).

Groundwater Elevation and Flow Direction

Groundwater elevations measured at the site are presented on Table 1. Figure 4 presents a groundwater contour map, which illustrates a generally westward flow direction. This westward flow component suggests that shallow groundwater at the site flows toward to and ultimately discharges into the small stream 1500 feet southwest of the site. The hydraulic gradient across the site ranges from 0.01 to 0.007 ft/ft.

Groundwater Flow Rates

Based on the measured hydraulic gradient and estimates of hydraulic conductivity and effective porosity, groundwater flow rates can be calculated using the average linear velocity equation.

$$V = \frac{K \; dh}{n_e \; dl}$$

V = average linear velocity
K = hydraulic conductivity
dh/dl = hydraulic gradient
n_e = effective porosity

Using an effective porosity value of 0.2, gradient values of 0.01 to 0.007, and hydraulic conductivity values of 10^{-2} to 10^{-3} cm/sec, calculated flow rates are on the order of 35 to 500 feet/year.

TABLE 1

Groundwater elevations, Mid-town Plaza Mobil, Milton, Vermont.

Well ID	Elevation of Ground Surface (feet)	Elevation of Top of Casing (feet)	11/3/93		11/9/93		12/20/93	
			Depth to Water from TOC (feet)	Groundwater Elevation (feet)	Depth to Water from TOC (feet)	Groundwater Elevation (feet)	Depth to Water from TOC (feet)	Groundwater Elevation (feet)
MW-1	96.20	95.71	18.84	76.87	18.77	76.94	18.76	76.95
MW-2	95.62	95.27	18.75	76.52	18.69	76.58	18.70	76.57
MW-3	95.62	94.83	17.85	76.98	17.84	76.99	17.75	77.08
MW-4	95.59	95.39	17.25	78.14	17.01	78.38	17.17	78.22
MW-5	95.83	95.32	17.59	77.73	17.59	77.73	17.53	77.79
MW-6	96.42	96.13					20.20	75.93
MW-7	97.04	96.69					20.48	76.21

NOTES:

TOC - top of casing

Benchmark - Top of Hydrant North of MW-1, Elev. = 100.00 feet

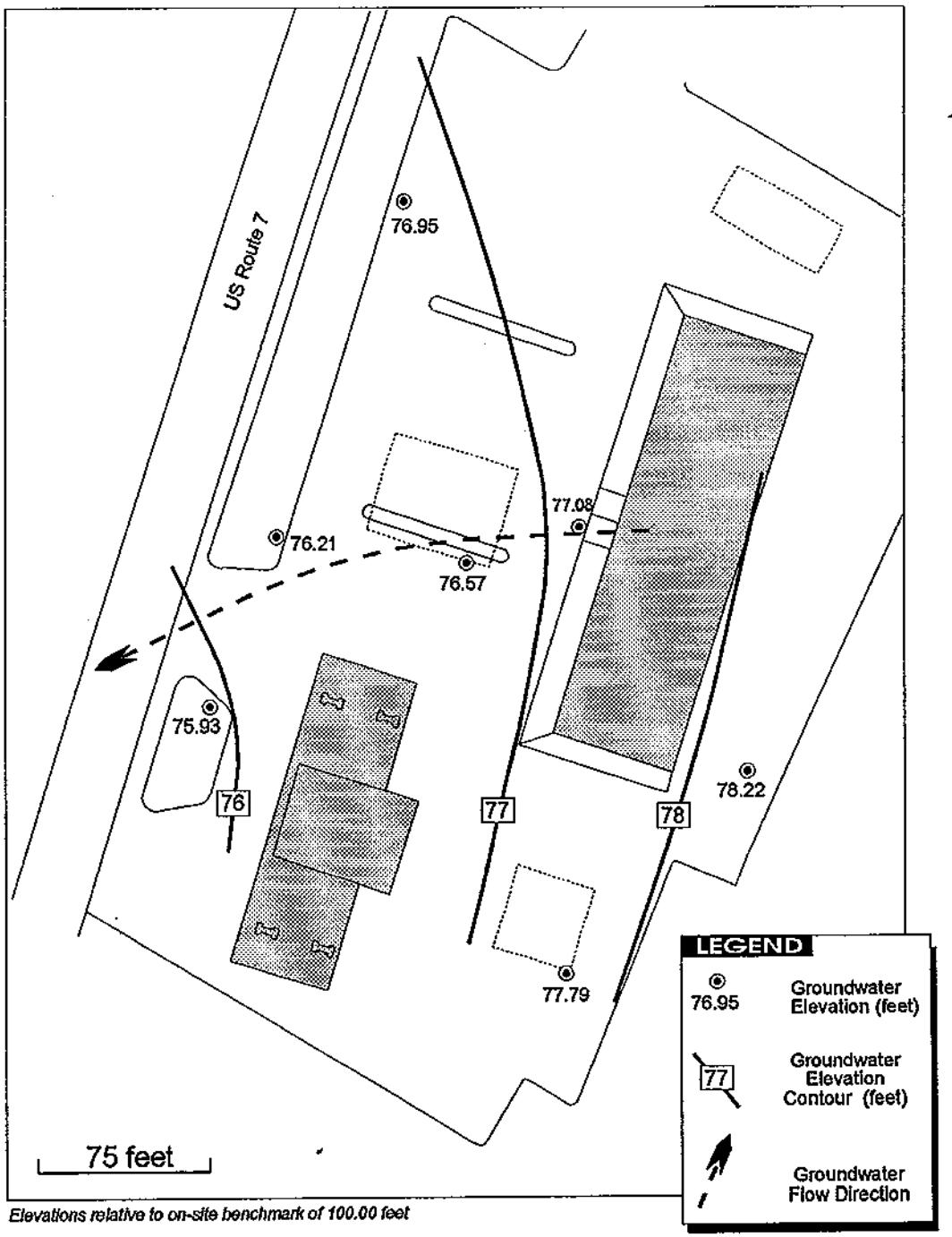

FIGURE 4
Groundwater contour map, December 20, 1993,
Mid-town Plaza Mobil, Milton, Vermont.

3.2 Groundwater Sampling Results

Groundwater sampling results are presented on Table 2. High concentrations of BTEX and MTBE were detected in MW-2, in the 1 to 25 mg/L range. Benzene and xylenes were detected in the 10 to 500 µg/L range in MW-6 and MW-7, which are downgradient from the former gasoline tank locations. MTBE was also detected in MW-6 at a concentration of 12 µg/L. Low concentrations of benzene, toluene and MTBE were detected in MW-3, which is slightly upgradient from the former gasoline tank locations. Toluene was detected at trace levels (3 µg/L) in MW-5.

BTEX and MTBE data on Table 2 are presented on isoconcentration contour maps on Figures 5 -9. The isoconcentration maps define a plume of dissolved-phase contamination migrating west and southwestward from the former gasoline tank locations. The downgradient extent of the plume has not been defined.

3.3 PID Measurements

PID measurements of soil samples collected during well installation, and well headspace measurements taken during groundwater sampling events are presented on Table 3. Elevated headspace readings indicative of groundwater contamination were detected in soil samples collected just above and below the water table in wells MW-2 and MW-3. Elevated readings were also detected in MW-7 in the 24 - 26 foot interval.

3.4 Free Product

No free-product accumulations have been detected in the site monitoring wells. No sheens were visible on waters purged from the wells prior to sampling.

TABLE 2

Groundwater sampling results, Mid-town Plaza Mobil, Milton, Vermont.

November 9, 1993 Results in µg/L					
WELL ID	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
Trip Blank	<2	<2	<2	<2	<2
MW-1	<2	<2	<2	<2	<2
MW-2	1,920	4,100	1,430	6,800	25,600
MW-3	4	4	<2	<2	64
MW-3 Field Duplicate	4	3	<2	<2	64
MW-4	<2	<2	<2	<2	<2
MW-5	<2	3	<2	<2	3
Field Blank	<2	<2	<2	<2	<2

December 20, 1993 Results in µg/L					
WELL ID	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
Trip Blank	<1	<1	<1	<1	<1
MW-6	8	<1	<1	19	12
MW-7	150	<100	<100	590	<100

NOTES:

<2 = below a practical quantitation limit of 2

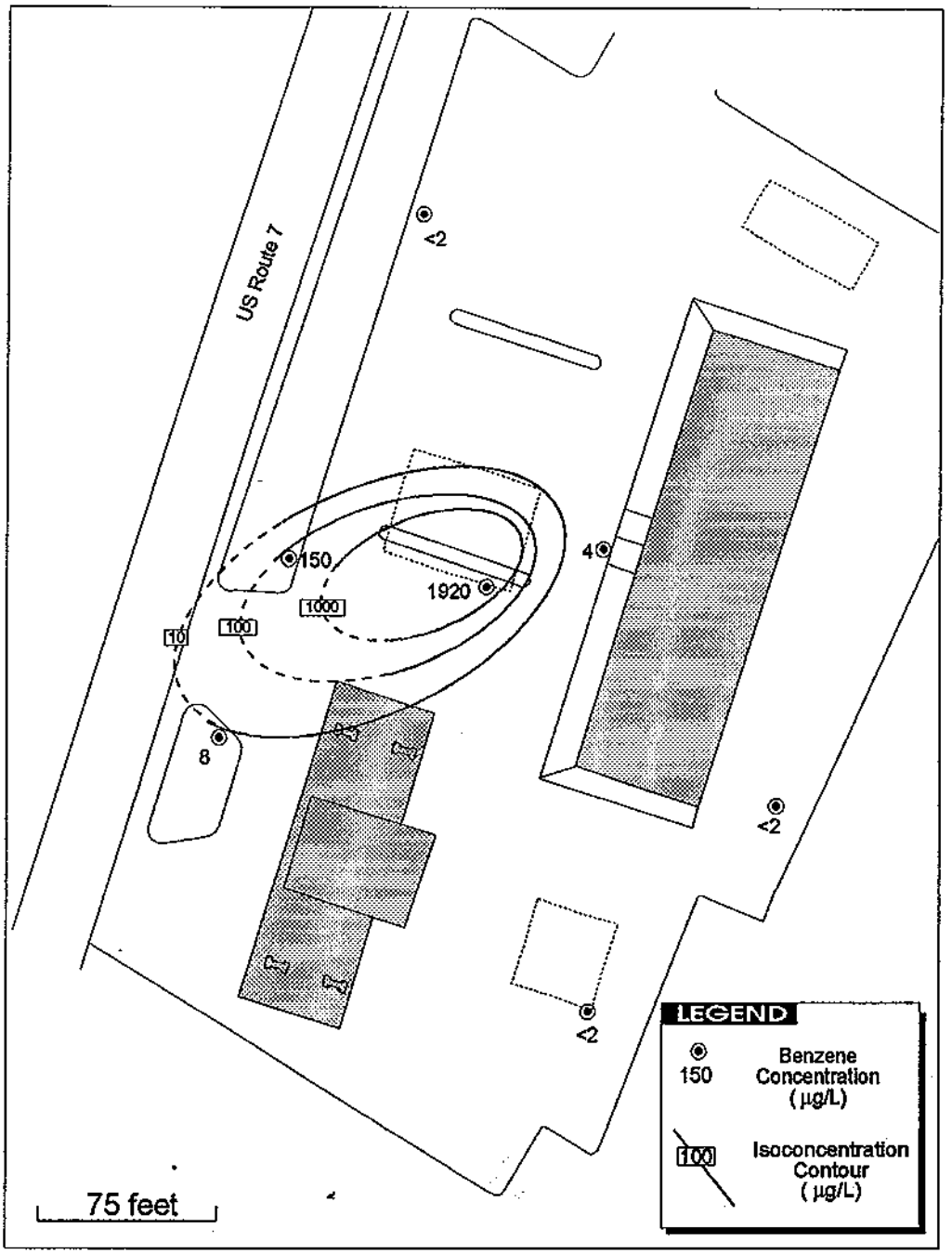

FIGURE 5
Benzene isoconcentration map,
Mid-town Plaza Mobil, Milton, Vermont.

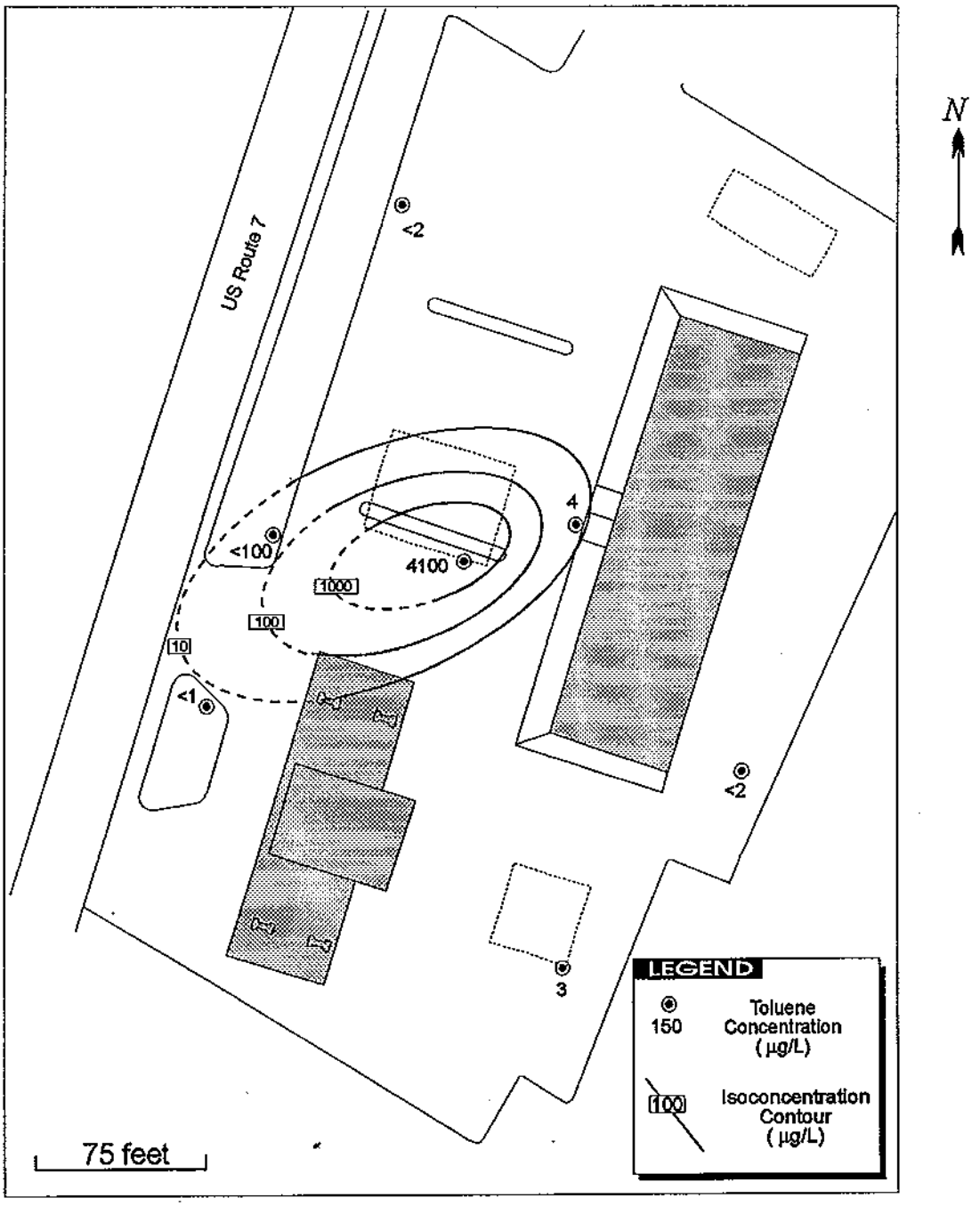

FIGURE 6
Toluene isoconcentration map,
Mid-town Plaza Mobil, Milton, Vermont.

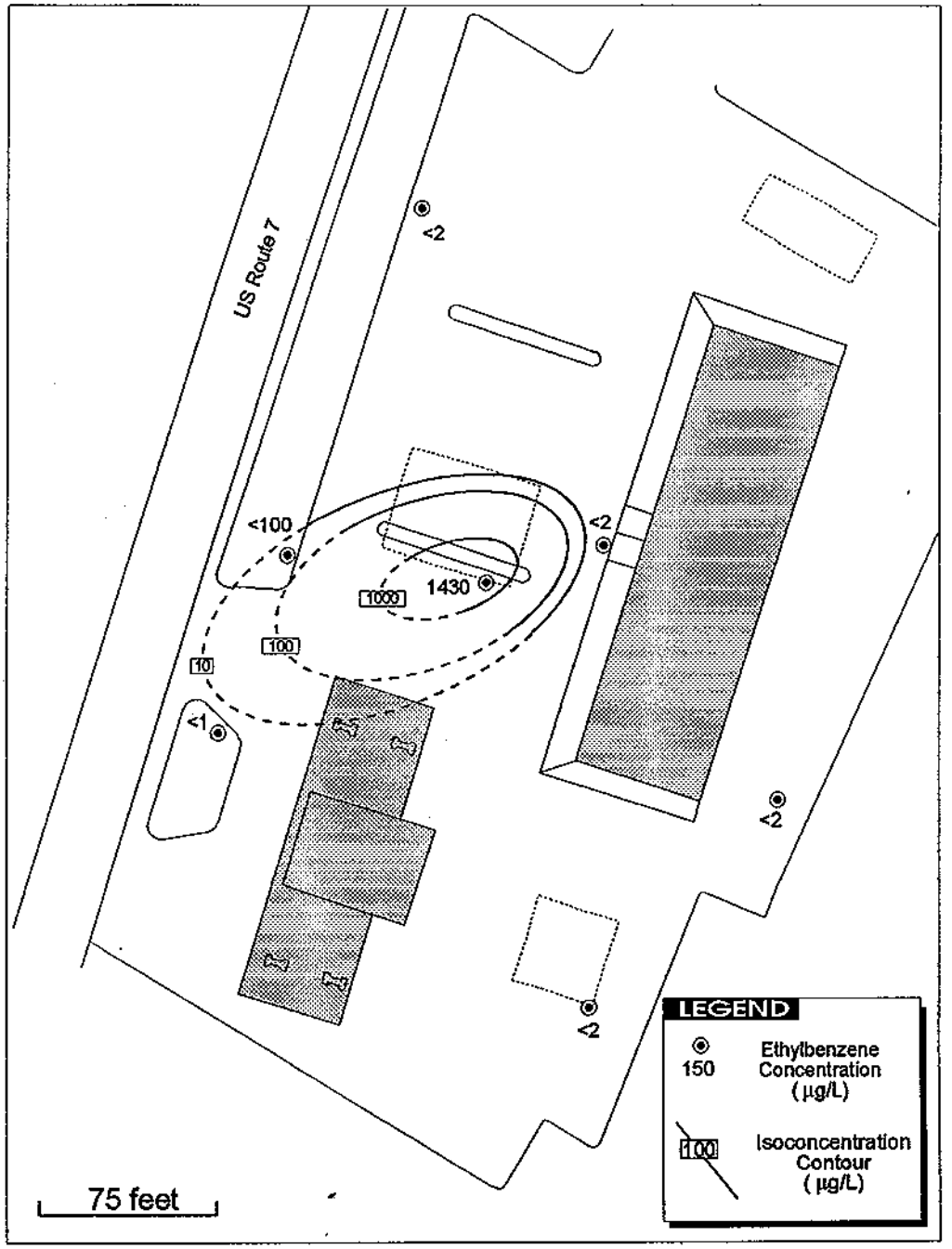

FIGURE 7
Ethylbenzene isoconcentration map,
Mid-town Plaza Mobil, Milton, Vermont.

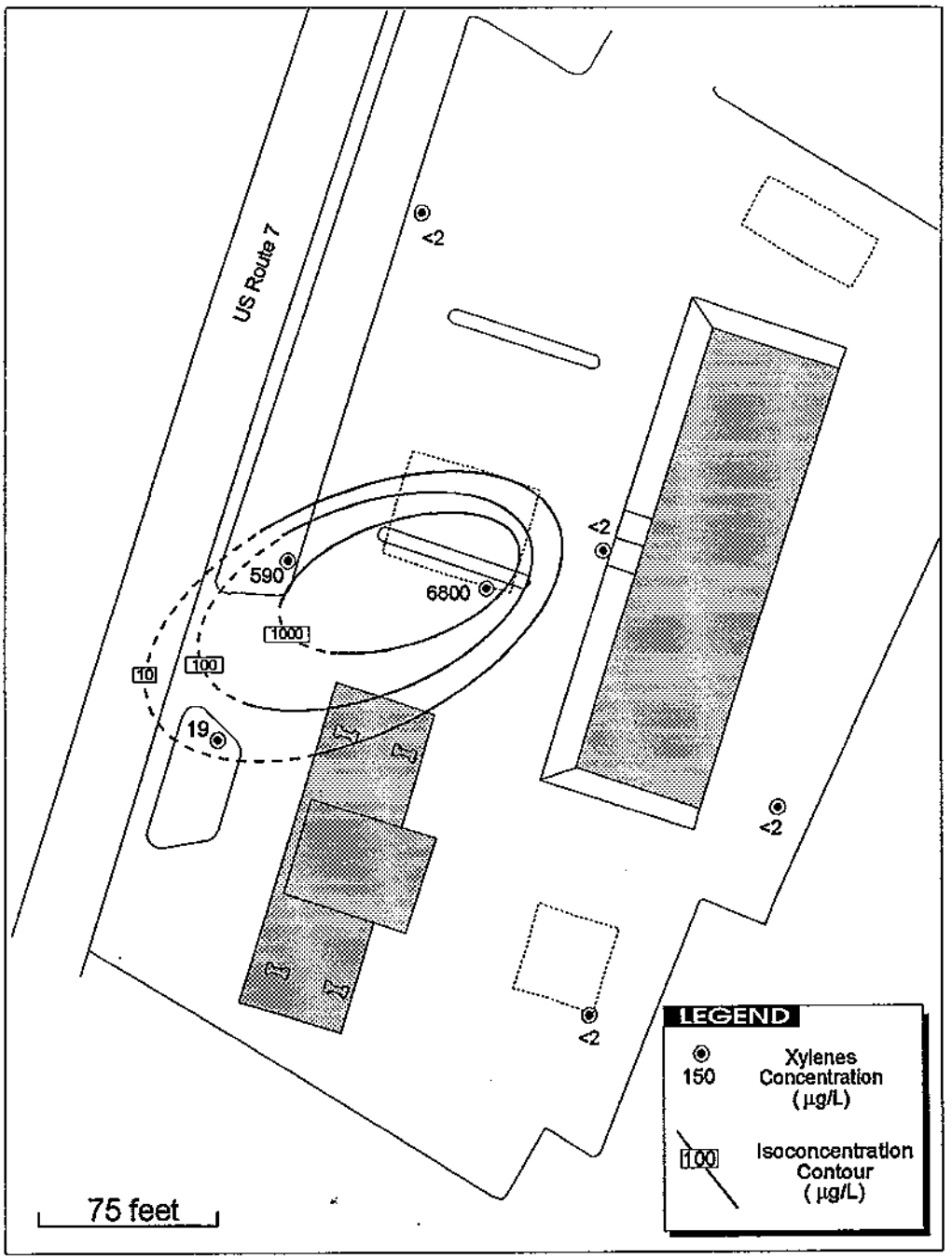

FIGURE 8
Xylenes isoconcentration map,
Milton Mid-town Mobil, Milton, Vermont.

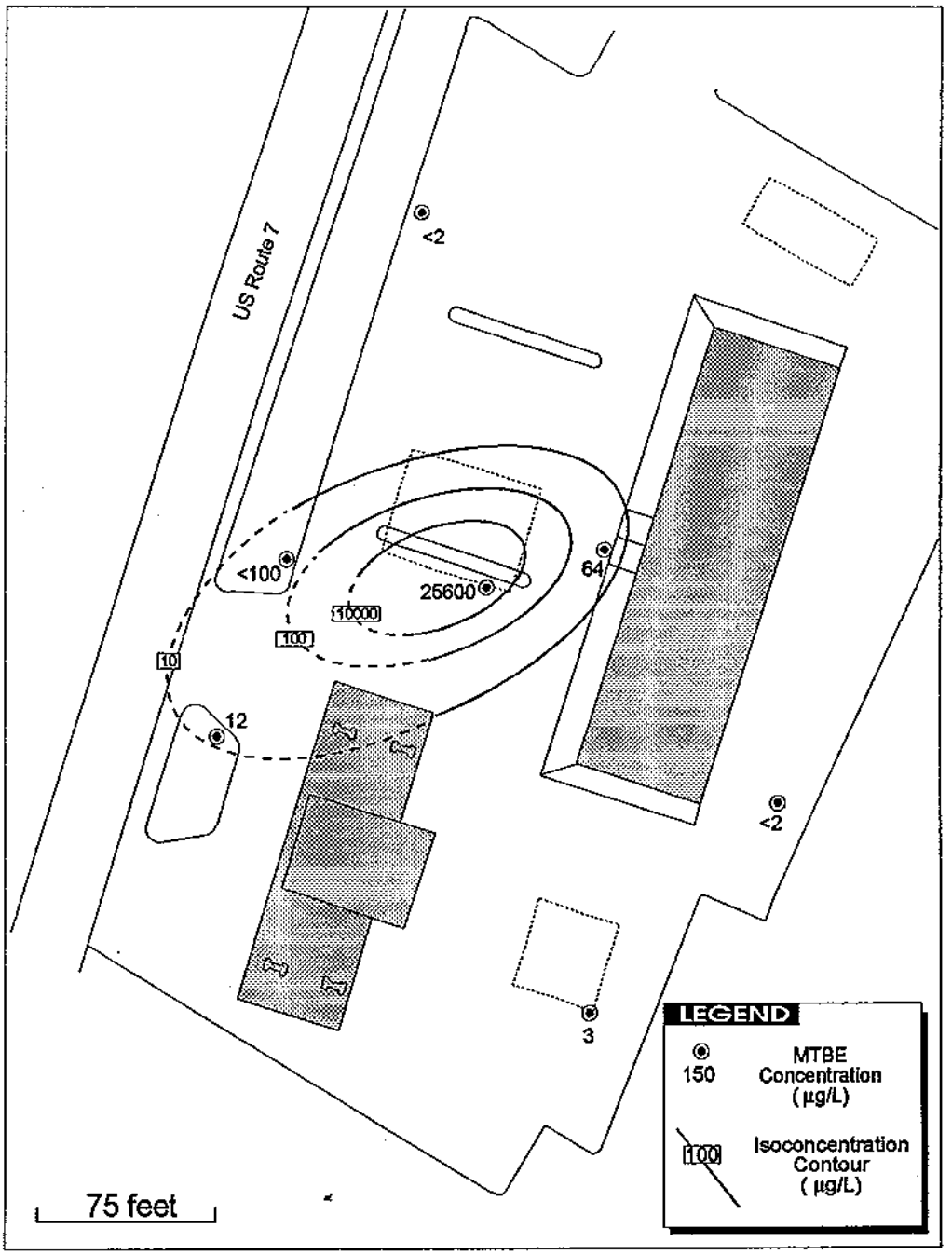

FIGURE 9
MTBE isoconcentration map,
Mid-town Plaza Mobil, Milton, Vermont.

TABLE 3

PID measurements of soil samples and well headspaces,
Mid-town Plaza Mobil, Milton, Vermont.

WELL HEADSPACE READINGS

Well ID	11/3/93 PID Reading (ppm)	12/20/93 PID Reading (ppm)
MW-1	0.5	
MW-2	227	
MW-3	72	
MW-4	0.2	
MW-5	0.8	
MW-6		0.7
MW-7		0.8

SOIL SAMPLE HEADSPACE READINGS

MW-1		MW-2		MW-3		MW-4		MW-5		MW-6		MW-7	
Depth (feet)	PID (ppm)	Depth (feet)	PID (ppm)	Depth (feet)	PID (ppm)	Depth (feet)	PID (ppm)	Depth (feet)	PID (ppm)	Depth (feet)	PID (ppm)	Depth (feet)	PID (ppm)
5-7	0.4	5-7	0.0	5-7	0.0	5-7	0.0	5-7	0.0	4-6	0.8	4-6	1.6
10-12	0.3	10-12	0.0	10-12	0.0	10-12	0.0	10-12	0.0	9-11	0.9	9-11	1.4
15-17	0.2	15-17	162	15-17	25.6	15-17	0.0	15-17	0.0	14-16	2.0	14-16	1.7
20-22	0.2	20-22	0.7	20-22	0.0	20-22	0.0	20-22	0.0	19-21	0.8	19-21	8.1
25-27	0.2	25-27	0.0	25-27	0.1					24-26	0.8	24-26	91.3

NOTES:

Headspace readings taken with MicroTIP HL-2000, 10.6 eV bulb, calibrated to isobutylene

4.0 DISCUSSION OF RESULTS

4.1 Source and Extent of Contamination

Impacts to soil and groundwater indicate historical releases of gasoline in the vicinity of the former gasoline tank locations. Since no holes were found in the tanks (which passed leak-detection tests six weeks prior to removal), the source of the releases is unknown, possibly due to overfilling or leaks in the piping runs. Due to the sandy nature of the site soils, releases of petroleum product at the site have readily impacted groundwater, which occurs at a depth of 17 to 20 feet. Groundwater sampling has defined a plume of dissolved-phase contamination migrating west and southwestward away from the former tank locations. The highest concentrations of BTEX and MTBE are present in MW-3, which is adjacent to the former gasoline tanks. The downgradient and lateral extent of contamination has not been defined. The plume may extend beneath US Route 7 and further south and west.

4.2 Potential Receptors

The immediate vicinity is serviced by municipal water. A map of the distribution system in the vicinity is included in Appendix B. The State's water well database was reviewed to identify water wells in the vicinity. Figure B-1 (Appendix B) presents approximate locations of selected nearby water wells. The closest wells are over 1000 feet south of the site. As mentioned previously, about half of these water wells are completed in bedrock, and half are screened (or completed with open-ended casing) in the water-bearing sands and gravels just above bedrock. Based on the site groundwater flow directions, it is unlikely that site contamination could impact any nearby water supplies.

The threat of petroleum vapor migration and accumulation appears to be limited. The structures on the site do not have basements, and the depth to groundwater at the site is 17 to 20 feet, far below buried utilities.

Groundwater elevations at the site suggest that shallow groundwater at the site ultimately discharges into a small stream which originates approximately 1500 feet southwest of the site. It appears unlikely that contamination at the site could impact this stream.

4.3 Conclusions and Recommendations

Impacts to soil and groundwater at the site indicate historical releases of gasoline in the vicinity of the former gasoline tank locations. Due to the sandy nature of the site soils, releases of gasoline at the site have readily impacted groundwater, which occurs at a depth of 17 to 20 feet. Groundwater sampling has defined a plume of dissolved-phase contamination migrating west and southwestward away from the former tank locations. The highest concentrations of BTEX and MTBE are present in MW-3, which is adjacent to the former gasoline tanks. The downgradient and lateral extent of contamination has not been delineated.

Although the existing data does not indicate that potential receptors are threatened by groundwater contamination detected at the site, and the apparent source has been removed, additional investigation is warranted to define the downgradient extent of contamination. It is recommended that additional groundwater monitoring be performed to further characterize site conditions and the downgradient extent of contamination. Three additional monitoring locations are proposed, as shown on Figure 10. Periodic groundwater sampling events should be performed to assess the levels of contaminants at the site, and site groundwater conditions. This information can be utilized to assess whether or not active remedial measures or additional monitoring may be appropriate at the site.

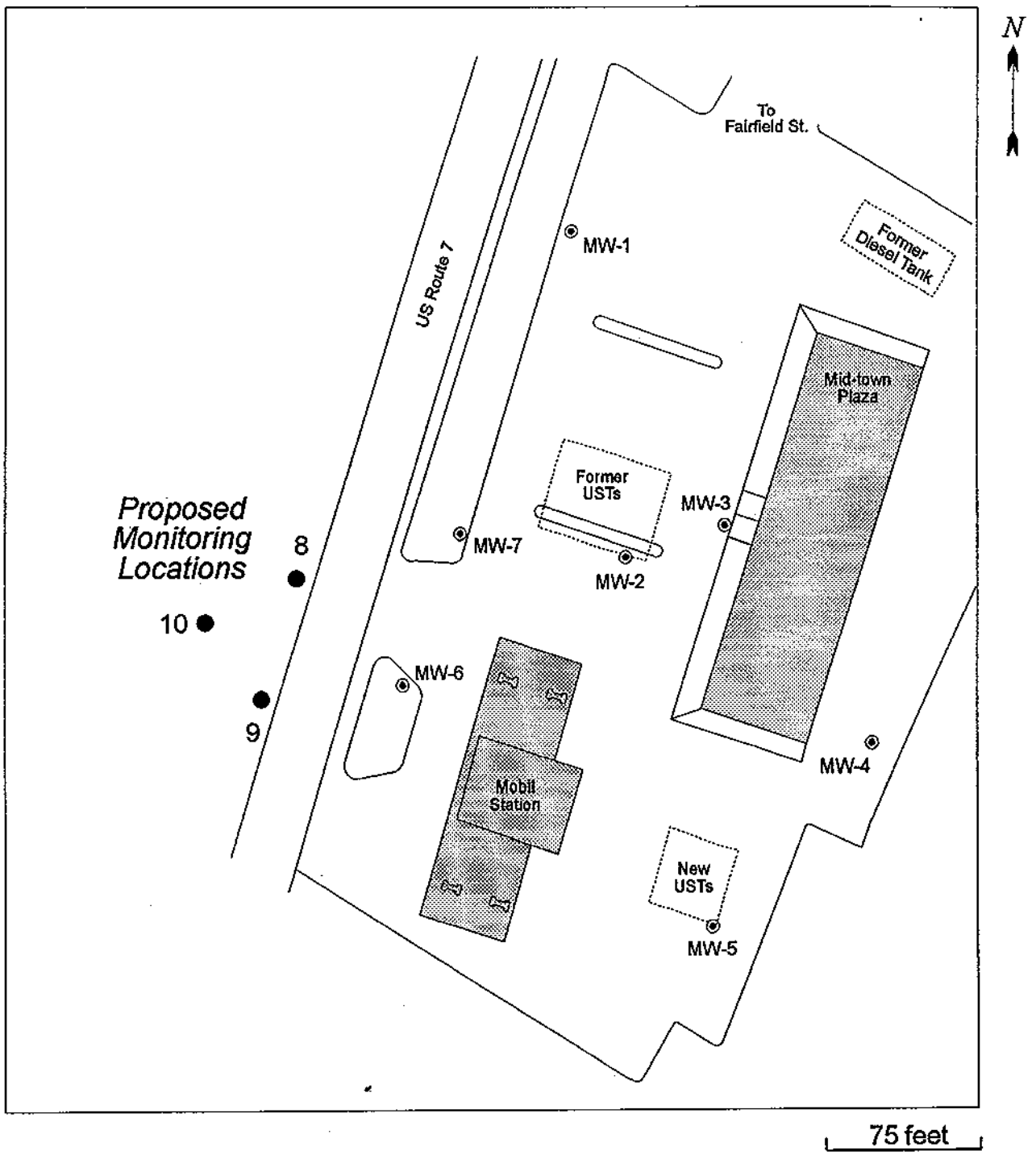

FIGURE 10
Proposed monitoring locations,
Mid-town Plaza Mobil, Milton, Vermont.

REFERENCES

Doll, C.G. (Ed.), 1970, Surficial Geologic Map of Vermont, State of Vermont.

Stewart, D.P., 1974, *Geology for Environmental Planning in the Milton-St. Albans Region, Vermont.* Environmental Geology No. 5, Vermont Geological Survey, Water Resources Department, Montpelier, Vermont.

APPENDIX A:

Relevant Correspondence

August 20, 1993

Mr. Carl Ruprecht
UST Manager
S.B. Collins, Inc.
54 Lower Weldon Street
St. Albans, VT 05478

Re: UST Removals, Midtown Plaza Short Stop, Milton, Vermont

Dear Carl:

This letter summarizes my observations during the removal of four USTs at the Midtown Plaza Short Stop site in Milton, Vermont, on August 17, 1993. One 10,000-gallon diesel and three 10,000-gallon gasoline tanks were removed. These tanks were reportedly 11 years old and recently passed pressure tests.

The site is located in Milton, along U.S. Route 7, as shown on Figure 1. Figures 2 and 3 are sketches of the site which show the former location of the tanks and soil sampling locations. During the tank removals, soils were screened for contamination using an HNU (10.2 eV bulb) photo-ionization detector (PID). Prior to its use, the PID was calibrated and checked with an isobutylene standard. Headspace readings were taken by placing soils in pint-size ziplock bags (half full), shaking the sample, and then inserting the tip of the PID to record the peak vapor concentration.

Surrounding land uses include businesses along Route 7, a school west of the site, a health center to the east, and residences north and east of the site. Businesses and residences in the vicinity are served by municipal water. The State's well log database was reviewed to identify nearby domestic wells. No wells were found within 500 feet of the site, although wells are present approximately 1000 feet south and east of the site (see Figure 1). The Milton water department is sending me a copy of their distribution map, which will indicate the extent of municipal water in the vicinity.

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Consulting Hydrogeologist

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According to the Surficial Geologic Map of Vermont, the site is underlain by pebbly marine sand. The nearest mapped surface water feature is over 1000 feet south of the site, and a tributary of Malletts Creek is located about 2000 feet east of the site. Both of these streams flow southward.

DIESEL TANK - D1

Soils surrounding D1 consisted of brown, uniform sand (medium to coarse-grained) with occasional fine gravel. No groundwater was encountered during the excavation, and the lack of significant soil mottling indicates no impeded drainage or perched groundwater zones in the vicinity. There were no visible signs of a release from D1, and no readings were detected through PID screening of soils. After removal from the ground, the tank was visually inspected. In general, the tank was in good condition. No holes or significant corrosion surfaces were found. Soil samples for laboratory analysis were collected from beneath the spine of the tank in two locations (see Figure 3). Companion samples were collected at these locations for headspace analysis with the PID. No readings were detected with the PID. The laboratory samples were submitted to Scitest Laboratories of Randolph, Vermont, for total petroleum hydrocarbons analysis (EPA Method 418.1 modified for soil). Sample results should be available within two weeks or so.

GASOLINE TANKS (G1, G2, and G3)

Soil conditions encountered during excavation of the gasoline tanks were similar to those encountered during removal of the diesel tank. Each tank was in good condition and no holes or significant corrosion surfaces were found. There were no visible indications of a release in the surrounding soils, although elevated PID readings were noted in soils surrounding and underlying the tanks. PID readings ranged from 0 to 300 ppm. The highest readings were found beneath and alongside the bottom of the tanks. These soils were removed from the pit and later moved to an on-site stockpile. Although additional soils underlying the excavation and on the sidewalls exhibited headspace readings on the order of 10 to 50 ppm, these soils were left in place. Excavated soils with PID readings exceeding 20 ppm were stockpiled on site (see location of Figure 2). Excavated soils with PID readings less than 20 ppm were backfilled.

After removal of the three tanks, soil was excavated below the west end of tank G-3 to an approximate depth of 12 feet below grade (2 -3 feet below the bottom of the tank). A change in stratigraphy was noted at approximately 11 feet below grade. Below 11 feet, a clean, fine-grained sand was encountered.

Two surface-water catch basins are located near where the gasoline tanks were located (Figure 2). No readings were detected in the catch basin east of tank G1. At the other catch basin, north of the gasoline tanks, a reading of 1.0 ppm was noted. Based on these

readings, and the lack of a basement in the Milton Discount Beverage and Deli, there does not appear to be a significant vapor migration or accumulation problem at the site.

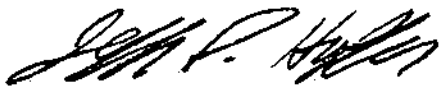
Four soil samples were collected for laboratory analysis. Samples G1-A and G1-B were collected from six inches beneath the bottom of tank G1. Sample G3-A was collected approximately 2 feet below tank G-3, and below the change in stratigraphy from medium/coarse sand to fine sand. Sample G3-A was collected on the sidewall east of tank G-3, at a depth of 5 feet below grade. The soil samples were submitted to Scitest for VOC analysis. Headspace readings for companion samples collected at each sampling location are given below.

Sample	Headspace (ppm)
G1-A	45
G1-B	300
G3-A	150
G3-B	50

The laboratory results should be available within two or three weeks. The analytical results, along with information concerning the extent of municipal water in the vicinity, can be used to evaluate what additional efforts may be necessary at the site.

I took a number of photographs during the tank removals and will forward these to you as soon as I receive them.

Sincerely,



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Consulting Hydrogeologist

att.

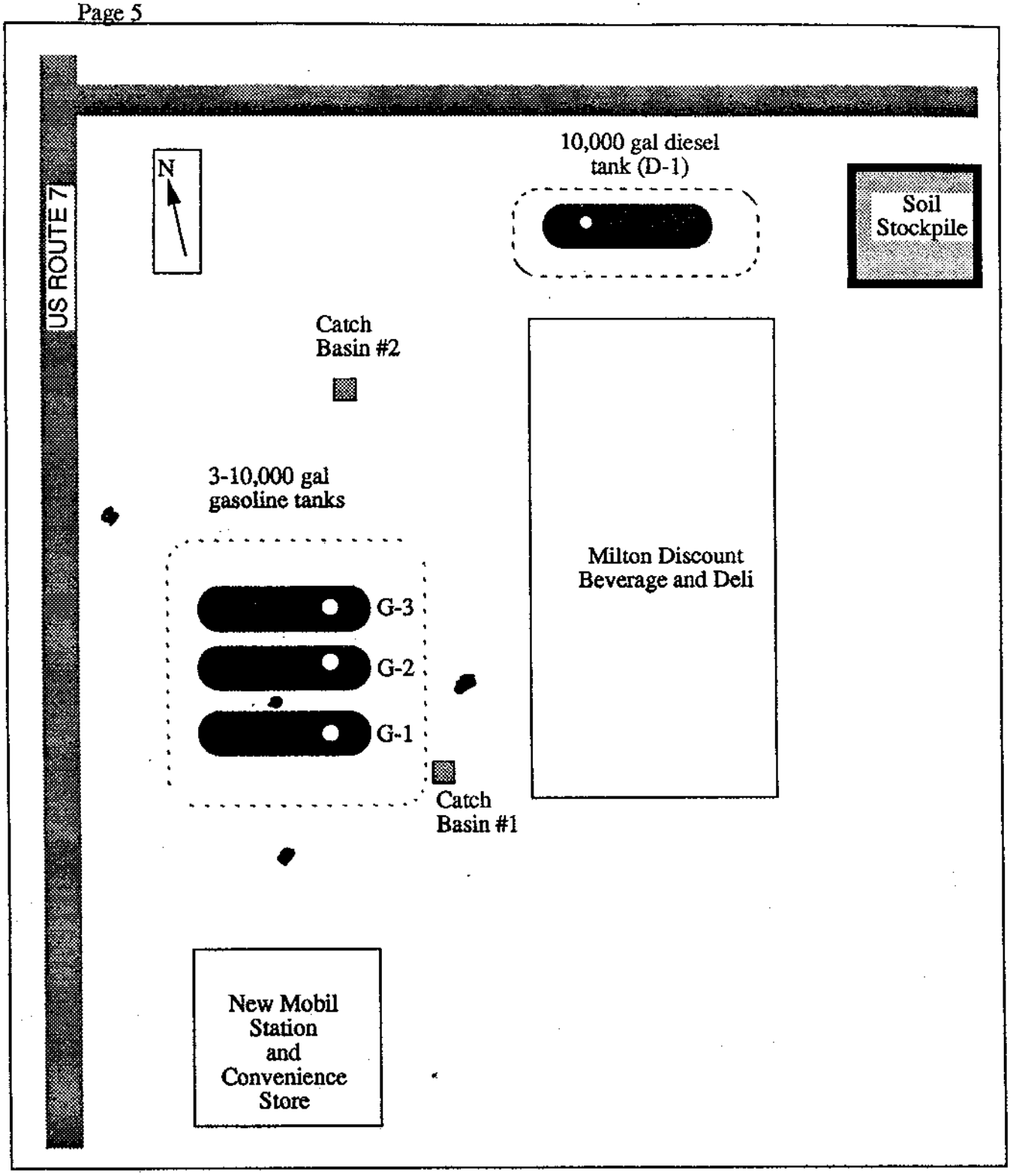
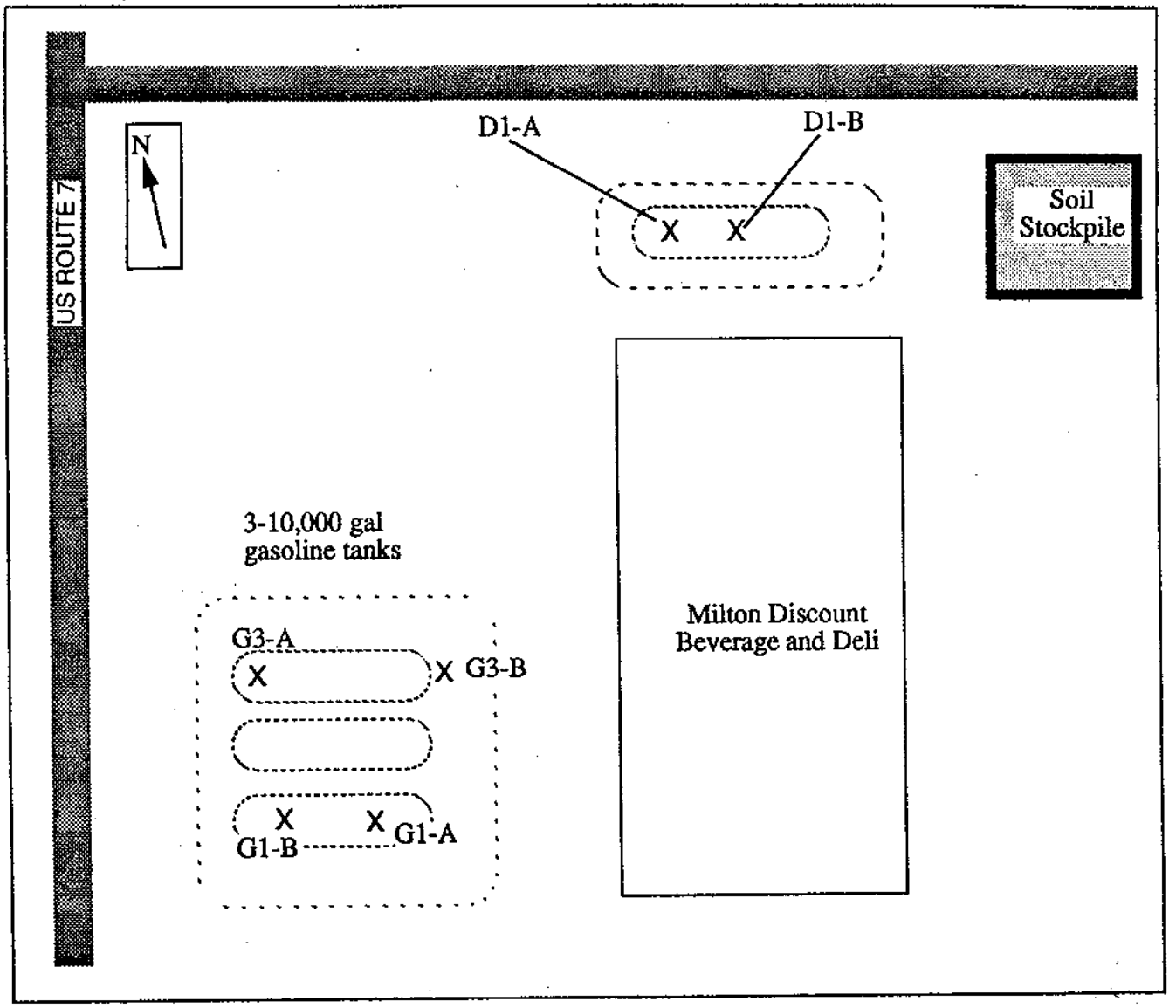


FIGURE 2
Sketch of Milton Mobil Site Showing Former Tank Locations.



X - Soil Sampling Locations

D1-A, Six Inches Beneath Tank D1 (under fill pipe)
D1-B, Six Inches Beneath Tank D1
G1-A, Six Inches Beneath Tank G1 (under fill pipe)
G1-B, Six Inches Beneath Tank G1
G3-A, Two Feet Beneath Tank G-3
G3-B, Sidewall, Five Feet Below Grade

FIGURE 3
Soil Sampling Locations.

SCITEST
LABORATORY SERVICES
P.O. Box 339
Randolph, Vermont 05060-0339
(802) 728-6313

LABORATORY REPORT

CLIENT NAME:	Jefferson P. Hoffer Consulting Hydrologist	LABORATORY NO.:	3-1410
		PROJECT NO.:	70249
ADDRESS:	P.O. Box 428 Waterbury, VT 05676	DATE OF SAMPLE:	8/17/93
		DATE OF RECEIPT:	8/18/93
SAMPLE LOCATION:	S B Collins/Milton Mobile	DATE OF ANALYSIS:	8/26/93
ATTENTION:	Jeff Hoffer	DATE OF REPORT:	9/13/93

RESULTS

(ug/kg micrograms per kilogram [ppb], dry weight)

PARAMETER	G1 A	G1 B	G3 A	G3 B
Methyl Tertiary Butyl Ether	75	<10000	BPQL	104
Benzene	22	<10000	BPQL	10
Toluene	25	43200	5	17
Ethylbenzene	58	<10000	BPQL	5
Total Xylenes	423	526000	17	109
Chlorobenzene	BPQL	<10000	BPQL	BPQL
1,2-Dichlorobenzene	BPQL	<10000	BPQL	BPQL
1,3-Dichlorobenzene	BPQL	<10000	BPQL	BPQL
1,4-Dichlorobenzene	BPQL	<10000	BPQL	BPQL
Surrogate % Recovery	89%	91%	78%	88%

EPA Method 8020

BPQL = Below Practical Quantitation Limit, 5 ug/kg (ppb), except as noted.

Respectfully submitted,
SCITEST, INC.

Roderick J. Lamothe
Laboratory Director

RJL/ph

LABORATORY REPORT

CLIENT NAME:	Jefferson P. Hoffer Consulting Hydrologist	LABORATORY NO.:	3-1410
		PROJECT NO.:	70249
ADDRESS:	P.O. Box 428 Waterbury, VT 05676	DATE OF SAMPLE:	8/17/93
		DATE OF RECEIPT:	8/18/93
SAMPLE LOCATION:	S B Collins/Milton Mobile	DATE OF ANALYSIS:	8/24/93
ATTENTION:	Jeff Hoffer	DATE OF REPORT:	9/13/93

TOTAL PETROLEUM HYDROCARBONS (418.1)
RESULTS

(Expressed as milligrams per kilogram [mg/kg], dry weight)

Location	Concentration
D1 A	64
D1 B	58

SCITEST
LABORATORY SERVICES

8302 Steve Received 9/25/93

State of Vermont

Department of Fish and Wildlife
Department of Forests, Parks and Recreation
Department of Environmental Conservation
State Geologist
Natural Resources Conservation Council

AGENCY OF NATURAL RESOURCES
Department of Environmental Conservation
Hazardous Materials Management Division
103 South Main Street/West Office
Waterbury, Vermont 05671-0404
(802) 241-3888
FAX (802) 244-5141

September 23, 1993

Carl Ruprecht
UST Manager
S.B. Collins, Inc.
54 Lower Weldon St.
St. Albans, VT 05478

RE: Petroleum contamination at the Midtown Mobil in Milton.
(Site #93-1456)

Dear Mr. Ruprecht:

The Sites Management Section (SMS) has received the August 20, 1993 report outlining the subsurface assessment for the above referenced site, conducted by Jefferson P. Hoffer. This report summarizes the degree and extent of contamination encountered during the assessment on August 17, 1993. One 10,00 gallon diesel underground storage tank (UST) and three 10,000 gallon gasoline USTs were removed.

During the tank pull, soils screened in the excavation pit of the gasoline USTs had peak concentrations of 300 ppm as measured using a photoionization detector. A total of 60 cubic yards of petroleum contaminated soil (PCS) measuring over 20 ppm were stockpiled onsite. The remaining excavated soils were backfilled. PCS exhibiting readings up to 50 ppm underlying the excavation and on the sidewalls were left in place. Neither groundwater nor free product were discovered onsite. The SMS has not received the four soil samples collected for laboratory analysis, nor have the onsite photographs been received.

Based on the above information, the SMS has determined that additional work is necessary at the site in order to determine the severity of contamination present. Therefore, the SMS is requesting that S.B. Collins retain the services of a qualified environmental consultant to perform the following:

1. Further define the degree and extent of contamination to the soil. This may be accomplished by obtaining soil borings, digging test pits, or performing a soil gas survey.

2. Determine the degree and extent of contamination, if any, to groundwater. If soil is found to contain evidence of contamination at the water table, then a sufficient number of monitoring wells should be installed in locations which will adequately define the degree and extent of contamination at the site. All groundwater samples

taken should be analyzed for BTEX and MTBE compounds.

3. Develop a plan to treat and/or monitor the stockpiled soils. The soils must be located in an area such that they have a low potential to impact nearby receptors. They must also be properly encapsulated in plastic. If the soils are to be moved offsite, the SMS or UST Program must grant permission prior to their transport.

4. Perform an assessment of the site to determine the potential for sensitive receptors to be impacted by the contamination. This should include nearby surface water, and any public or private drinking water wells which are located within the vicinity of the site. If any water supplies appear at risk from this contamination, they should be sampled and analyzed using EPA 8020.

5. Determine the need for a long term treatment and/or monitoring plan which addresses the contamination present at the site. The need for such a plan should be based on the results of the above investigations.

6. Submit to the SMS a summary report which outlines the work performed as well as providing conclusions and recommendations. Included should be detailed well logs, analytical data, site map, area map, and a groundwater contour map.

Please have your consultant submit a preliminary work plan and cost estimate within fifteen days of your receipt of this letter so that it may be approved prior to the initiation of onsite work. The underground storage tanks at the Midtown Mobil are covered by the Petroleum Cleanup Fund as set forth in 10 V.S.A. Section 1941. An owner or permittee of an underground storage tank, who is not in significant violation of his or her permit, is eligible for reimbursement from the fund. The owner or permittee must pay for the removal or repair of the failed tank and for the first $10,000 of the cleanup; after that the fund will reimburse the tank owner or permittee for additional cleanup costs up to $1 million. Additionally, the Secretary of the Agency of Natural Resources reserves the right to seek cost recovery of fund monies spent at the Midtown Mobil site if the Secretary concludes that S.B. Collins is in significant violation of the Vermont Underground Storage Tank statute (10 V.S.A., Chapter 59). If you have any questions, please feel free to call.

Sincerely,

Chuck Schwer, Supervisor
Sites Management Section

cc: Milton Selectboard
DEC Regional Office

jessof/wp/931456

October 12, 1993

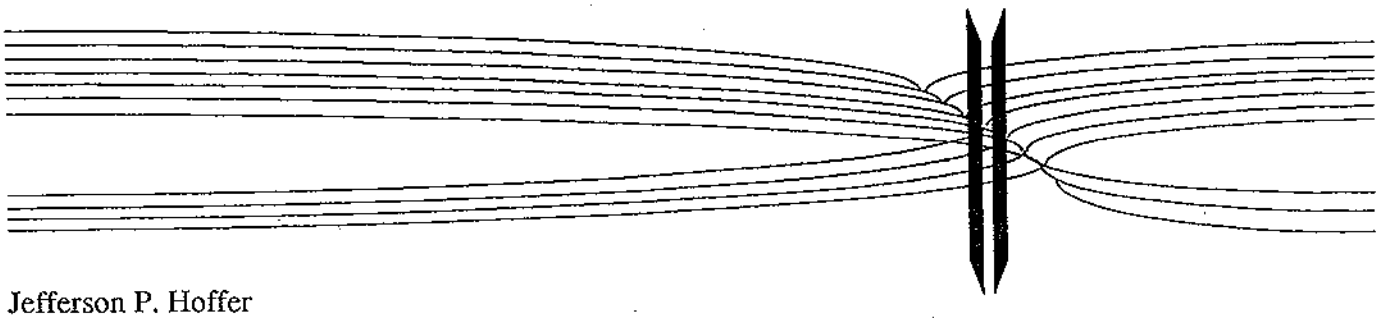
Mr. Carl Ruprecht, UST Manager
S.B. Collins, Inc.
54 Lower Welden Street
St. Albans, Vermont 05478

Re: Scope of Work for Hydrogeologic Investigation
Midtown Mobil, Milton, VT

Dear Carl;

The following scope of work has been prepared for a hydrogeologic investigation at the Midtown Mobil in Milton, Vermont. This investigation is prompted by evidence of a release of petroleum product discovered during the removal of three 10,000-gallon gasoline USTs and one 10,000-diesel UST. Soils surrounding and underlying the gasoline tanks were screened with a photo-ionization detector (PID) and exhibited up to 300 ppm organic vapors. Analytical results of soil samples collected at the site are summarized on the enclosed Table 1. No holes were found in the tanks, and no free product was discovered. Soils encountered during the tank excavations were uniform sand (med/coarse) with occasional fine gravel to a depth of 11 feet, underlain by a fine sand. No groundwater was detected during the tank excavations, which extended to a maximum depth of 12 feet. Additional background information is contained in my August 20, 1993 letter describing the tank removals.

This scope of work has been developed to investigate the nature and extent of contamination at the site. The primary focus will be to define site hydrogeologic characteristics and groundwater flow directions, and to determine the extent of groundwater contamination (BTEX/MTBE concentrations and distribution). This will be accomplished by installing and sampling five groundwater monitoring wells at the site. A general site characterization will also be performed to identify potential receptors such as water-supply wells and surface waters.



Jefferson P. Hoffer
P.O. Box 428, Waterbury, Vermont 05676 (802) 244 - 5573

SCOPE OF WORK

The following work items will be performed at the site.

- General site characterization - Information on the site environmental setting will be collected from such sources as USGS topographic maps, SCS maps, geologic and hydrologic reports, and the Water Supply Division's water well inventory database. The nearest water-supply wells identified in the database will be field located and included on site maps presented in the report. Surface waters and other relevant hydrologic features in the vicinity will also be identified.

  A site location map will be prepared using a 1:24,000 USGS topographic map as a base. A site vicinity map will be prepared using a 1:5,000 orthophoto or enlarged USGS topographic map to display local features. A site map at a scale of 1 inch = 50 feet will be used to display monitoring well locations, groundwater elevation contours and flow directions, and contaminant distribution.

- Groundwater monitoring well installation. Groundwater was not encountered at the site to a depth of 12 feet. State files on nearby hazardous sites were reviewed to obtain information on groundwater conditions in the vicinity. At the Atlantic Service Station (about 1 mile southeast), groundwater occurs at or above a clay horizon at five feet and flows northeastward. At Marty's Mobil and Rowley Fuels (about 1 mile north), groundwater occurs between zero to five feet in a fine silt and flows southward. The Midtown Mobil site is at a higher elevation than these sites, and is underlain by coarser sediments. It is anticipated that groundwater occurs at a depth between 12 and 20 feet. Two surface-water streams are located southeast of the site, and shallow groundwater at the site likely flows toward these local groundwater discharge areas. Thus the anticipated groundwater flow direction at the site is southeastward.

  Five soil borings/monitoring wells are proposed at the site. Proposed locations are presented on the enclosed Figure 2, and are based on expected groundwater flow directions. Well #1 is sited in the inferred upgradient direction. Wells #2 and #3 are in the downgradient direction within ten feet of the former tank locations, outside of the excavation. Wells #4 and #5 are sited in the downgradient direction.

  Boreholes will be advanced using hollow-stem augers. Split-spoon samples will be collected every five feet. Split-spoon samples and cuttings returned on the auger flights will be visually inspected and described according to USDA classifications.

  Soil samples will be collected from the split-spoons and field-screened using a PID to qualitatively assess soil contamination. Soil samples will be collected from the split spoons and placed into plastic bags or glass jars, in preparation for field screening with the PID.

  Boreholes will be advanced approximately five feet below the water table. If a change in stratigraphy is not noted to this depth, at least one boring will be advanced until a change in stratigraphy is encountered, or a maximum depth of 40 feet.

Wells will be constructed with 10 feet of two inch factory-slotted (10 or 20-slot), flush-thread, PVC well screen. The well screen will be positioned so that approximately five feet of screen is below the water table. Flush-thread PVC riser will be extended from the screen to the ground surface. The well screens will be backfilled with an appropriately-sized, commercially-sorted sand. Geologic and monitoring well construction logs will be prepared to document the stratigraphy and well construction details.

After well installation, the wells will be developed by either bailing or pumping. All development waters will be collected and placed into 55-gallon drums at the site.

During the well drilling and installation activities, a PID will be utilized to monitor for the presence of organic vapors. The vapor monitoring will be used to detect zones of contamination, and also to monitor worker air-space for health and safety concerns.

- Groundwater sampling. One round of groundwater sampling will be performed. Samples will be collected from each of the monitoring wells. The monitoring wells will be purged of three well volumes by bailing or pumping. Samples will be collected using a Teflon™ bailer equipped with a bottom-emptying stopcock to minimize sample agitation. All sampling equipment will be decontaminated between sampling points with an Alconox™ scrub/tap water rinse/methanol rinse/deionized water rinse. Quality assurance/quality control samples will include a trip blank, a field/equipment blank, and a blind duplicate. The trip blank will be provided by the laboratory and will be transported to the site, handled the same as other samples, and returned to the laboratory for analysis. The field/equipment blank will be prepared by pouring deionized water through the teflon sampling bailer, to determine the effectiveness of the decontamination procedure and possible sample exposure to airborne contaminants.

  The samples will be properly labeled and placed into a cooler with ice. The samples will be transported to a laboratory and analyzed for BTEX and MTBE using EPA Method 602. A laboratory chain-of-custody form will be utilized to document the sampling event.

- Groundwater elevation surveys. Monitoring well elevations will be surveyed to allow calculation of groundwater elevations. If possible, site elevations will be measured relative to a USGS benchmark in feet above mean sea level. If not, an on-site benchmark will be assigned an arbitrary reference elevation. Two water-level surveys will be performed. The initial survey will occur a few days after the installation/development of the monitoring wells. A second round of water-level measurements will be taken at the time of groundwater sampling. Groundwater elevation maps will be prepared for both water-level surveys.

- Report preparation. All information collected during the investigation will be incorporated into a final report. The report will describe the environmental setting, the nature and extent of contamination found at the site, and potential receptors. The report will include logs, tables, vicinity and site maps, contour maps, cross-sections, and other figures, as appropriate. The report will also provide recommendations concerning subsequent investigations or remediation efforts which may be deemed necessary at the site.

- Health & Safety. A Health & Safety Plan will be prepared for work performed at the site.

ESTIMATED COST

Estimated costs to perform this investigation are as follows;

Hydrogeologic Consultant - Jefferson P. Hoffer (see enclosed cost estimate sheet)	$2,622
Well Contractor - (5 wells @ $750/well) 7 wells	~~$3,750~~ 5,250
HNU Rental - (2 days x $75/day)	$ 150
Surveyor - (4 hours @ $75/hr)	$ 300
Laboratory - (8 samples @ $65/per)	$ 520
TOTAL	**$7,342**

2,622

My portion of the work will be performed on a time and expense basis not to exceed an estimated cost of ~~$2,902.~~ A detailed cost estimate sheet is attached and includes a breakdown of estimated labor charges, rental fees, and travel expenses.

All services will be provided and billed in accordance with the attached Standard Terms. S.B. Collins acknowledges having read and agreed to these rates and terms upon acceptance of this proposal. This proposal will remain open for 30 days.

I thank you for the opportunity to be of service to S.B. Collins. You can authorize the work by signing below or issuing a contract agreement or purchase order.

Respectfully submitted,

Jefferson P. Hoffer
Consulting Hydrogeologist

Accepted by:

_____
Authorized Signature

_____
Title Date

Enc.

TABLE 1
Soil sampling results, Midtown Mobil, Milton, Vermont.

Total Petroleum Hydrocarbons in mg/Kg

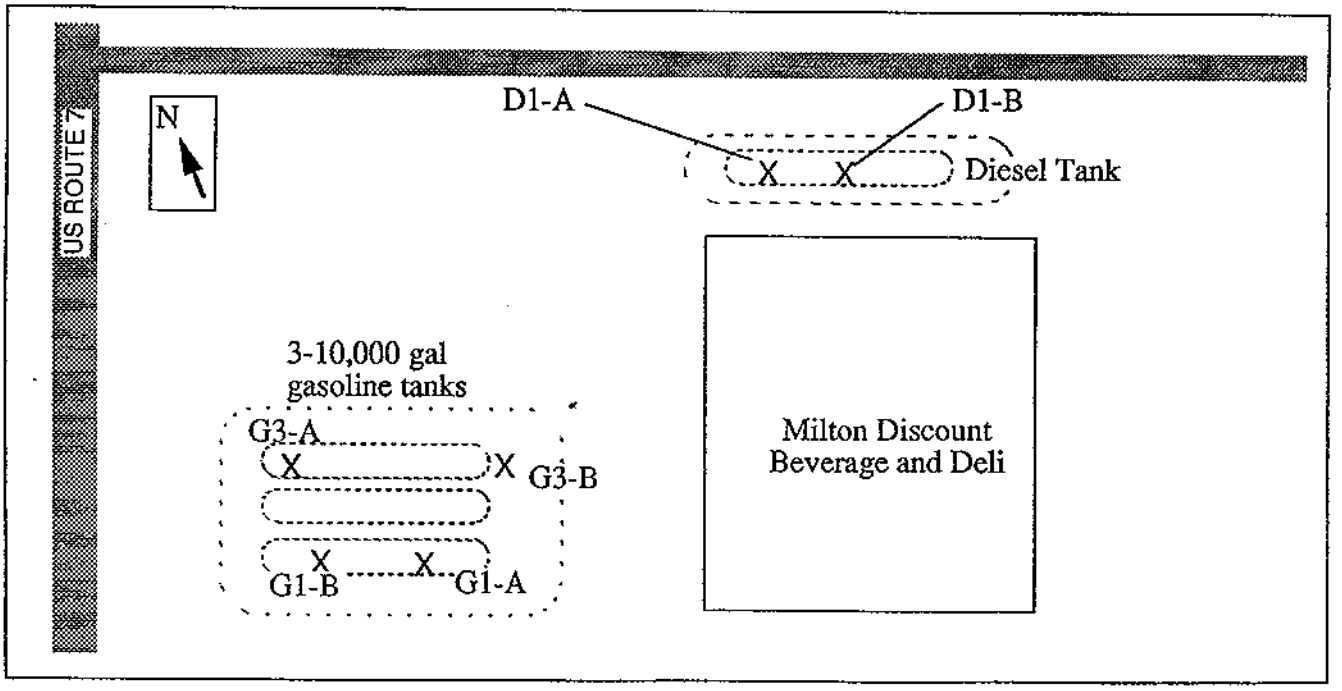
Sample ID	Depth (1)	TPHC
D1-A	0.5	64
D1-B	0.5	58

BTEX AND MTBE Results in µg/kg

Sample ID	Depth (1)	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
G1-A	0.5	22	25	58	423	75
G1-B	0.5	<10,000	43,200	<10,000	526,000	<10,000
G3-A	2	<5	5	<5	17	<5
G3-B	0.5	10	17	5	109	104

NOTES:
<10,000 = less than a detection limit of 10,000
(1) Feet below tank.

SAMPLING LOCATIONS



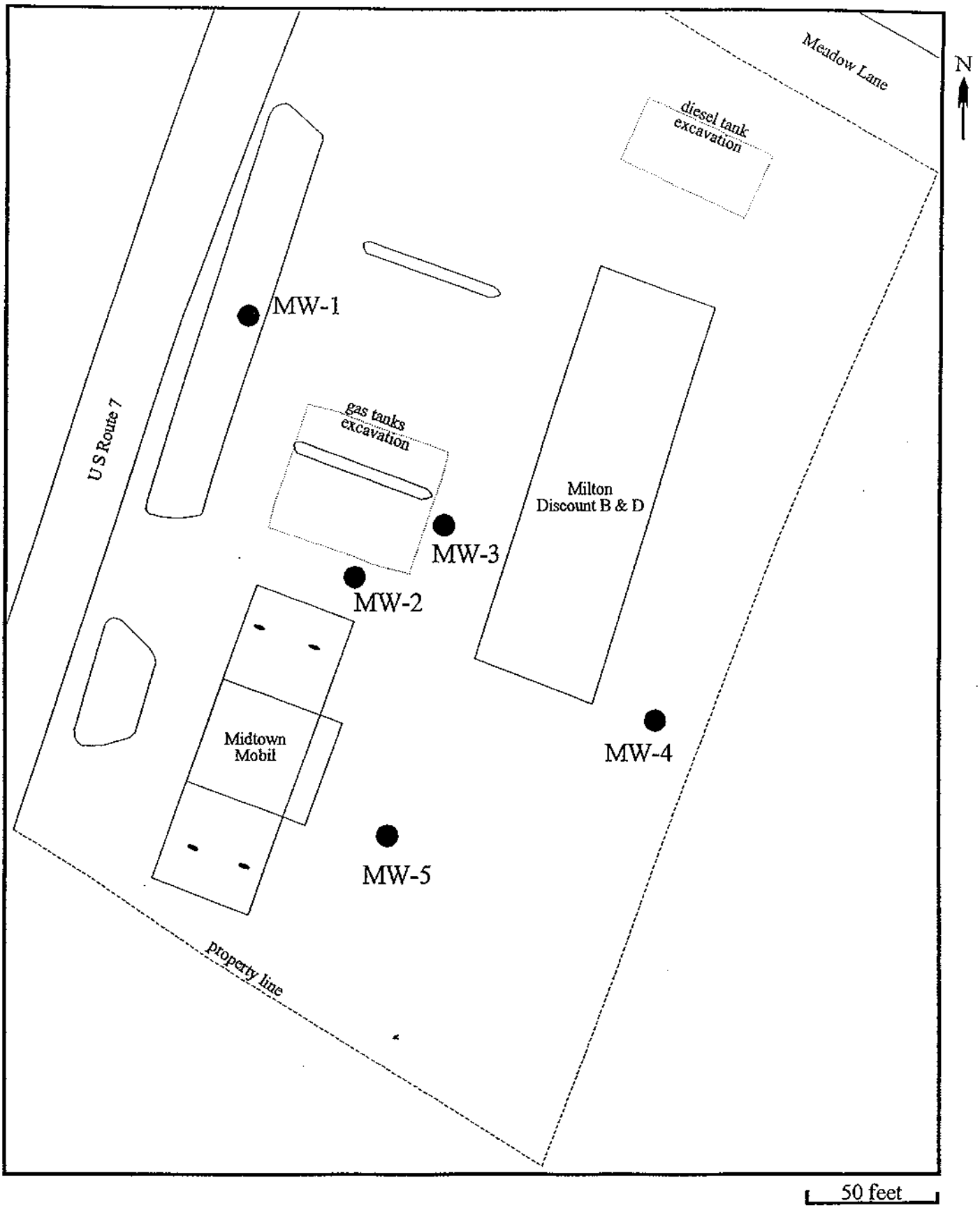


FIGURE 1
Proposed monitoring well locations,
Midtown Mobil, Milton, Vermont.

APPENDIX B:

Water Well Logs and
Milton Water System Map

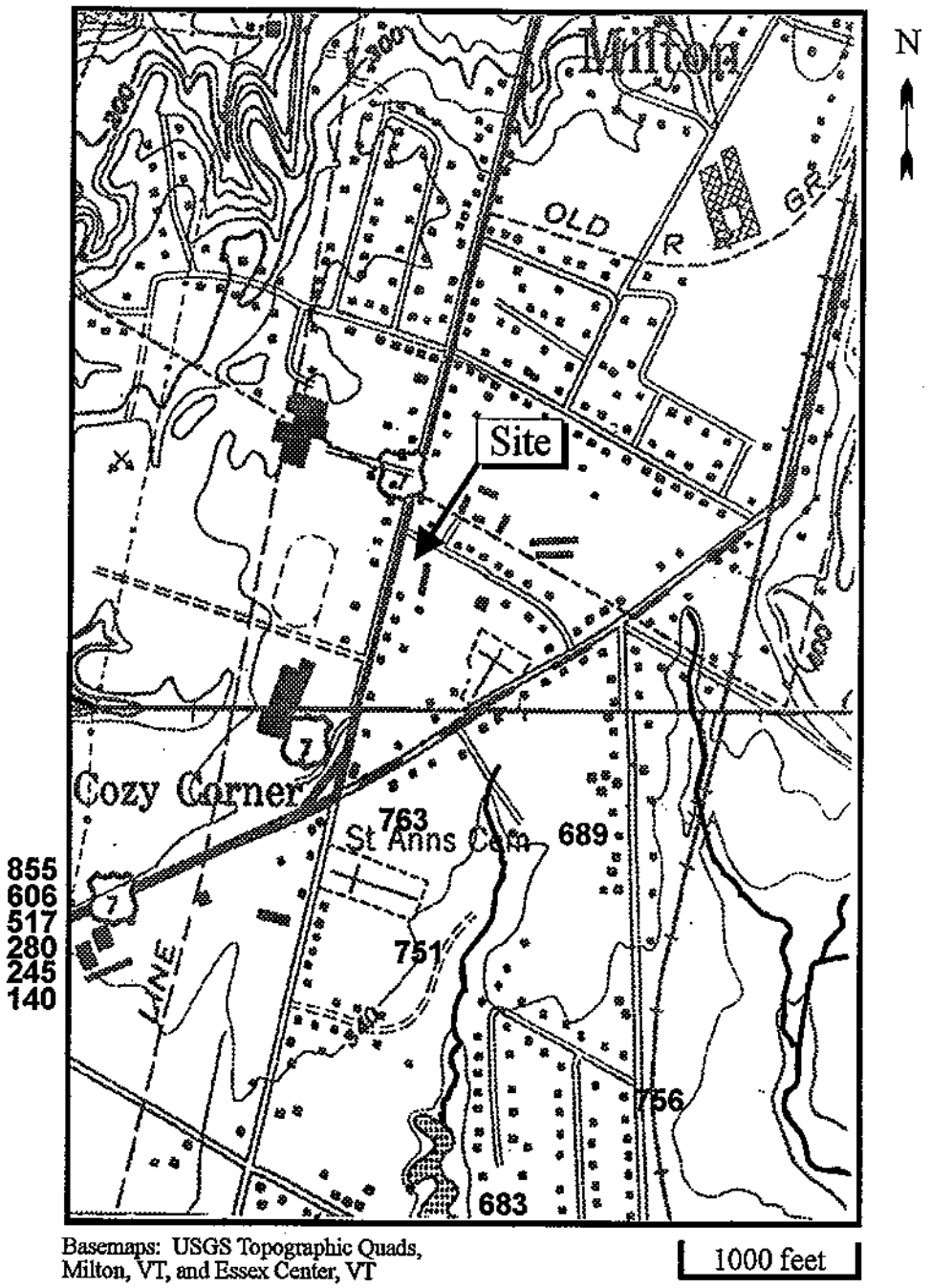


FIGURE B-1
Approximate locations of nearby water wells,
(3-digit Water Resources identification number),
Milton, Vermont.

TABLE B-1
Summary of well logs of nearby water wells, Milton, Vermont.

	WR#140		WR#245		WR#280		WR#517		WR#606		WR#683	
	Depth	Description	Depth	Description	Depth	Description	Depth	Description	Depth	Description	Depth	Description
	0-160	sand	0-10	sand	0 -20	brown sand	0-30	sand/silt	0-90	fine bn sand	0-40	sand
	160-195	clay	10-160	gray clay	20-60	clay	30-190	blue clay	90-150	fine silt	40-60	blue clay
	195-210	green shale	160-168	sand/gravel	60-106	gray sand	190-197	gravel	150-212	gray clay	60-80	quick sand
			168-177	shale/slate	106-448	gn bedrock			212-218	gravel	80-98	hard pan
											98-101	sand
completion	198' casing	(bedrock)	176' casing	(bedrock)	108' casing	(bedrock)	196' casing	(gravel)	218' casing	(gravel)	101' casing	(gravel)
static level			55'								53'	
yield	10 gpm		30 gpm		20 gpm		45 gpm		100 gpm		26 gpm	

	WR#689		WR#751		WR#756		WR#763		WR#855	
	Depth	Description	Depth	Description	Depth	Description	Depth	Description	Depth	Description
	0-30	sand	0-40	sand	0-98	s/g, clay	0-50	fine sand		
	30-230	blue clay	40-210	blue clay	98-103	shale	50-215	blue clay	224-274	bedrock
	230-248	gravel	210-230	sand	103-202	?	215-223	gravel		
			230-304	gravel			223-269	dense till		
			304-620	limestone						
completion	237' casing	(gravel)	308' casing	(bedrock)	105' casing	(bedrock)	269' casing	(gravel)	(deepened)	(bedrock)
static level										
yield	15 gpm		4 gpm		4 gpm		7 gpm		10 gpm	

WELL NUMBER
7
(For Driller's Use)

1287

WR 140 USGS MSW 138
Field Loc ☐ Map Des 12C-3
La. 44°38'16" Alt 475 TS S
Lo. 73°05'45" ☐ HU 02010005
Scale: 62500 ☐, 25000 ☐, 24000 ☒

State of Vermont
DEPARTMENT OF WATER RESOURCES
WELL COMPLETION REPORT

(This report must be completed and submitted to the Department of Water Resources, State Office Building, Montpelier, Vermont 05602, no later than 60 days after completion of well. Complete or line out all blanks.)

RECEIVED
MAY 19 1975
Dept. of Water Resources

DO NOT FILL IN
140

WELL OWNER Lloyd Gilbert (Name) Mt. View Heights, Milton, Vt (Mailing Address)

TOWN IN WHICH WELL IS LOCATED: Milton, Vt.

DATE WELL WAS COMPLETED: 2/25/75

(Please locate well on a large scale map to accompany this report. Maps are available on request.)

PROPOSED USE OF WELL: ☑ Domestic ☐ Agricultural ☐ Business Establishment ☐ Municipal ☐ Industrial ☐ Other (Specify)

DRILLING EQUIPMENT: ☐ Cable Tool ☐ Rotary ☑ Air Percussion ☐ Other (Specify)

TOTAL DEPTH OF WELL: 210' STATIC WATER

CASING DETAILS: Length 198' ft. Diameter 6 in. Material Steel
Weight 19.45 lb./ft.

SCREEN DETAILS: Make Material Length ft.
Diameter in. Slot Size

METHOD OF SEALING CASING TO SCREEN OR BEDROCK: Butler Larkin Well Seal

FINAL YIELD TEST: ☐ Bailed, or ☐ Pumped, or ☑ Compressed Air
1 Hours at 10 gallons per minute
Water level during yield test

WELL LOG

Depth From Ground Surface	Give description of formations penetrated, such as: peat, silt, sand, gravel, clay, hardpan, shale, limestone, granite, etc. Include size of gravel (diameter) and sand (fine, medium, coarse, color of material, structure (loose, packed, cemented, hard). For example: Surface to 27 ft. fine, packed, yellow sand; to 134 ft. gray granite.
Surface to 100 ft.	sand
100 to 160 ft.	~~clay~~ sand
160 to 195 ft.	clay
195 to 198 ft.	green shale
198 to 210 ft.	green shale

YIELD TEST DATA IN G.P.M.
If yield was tested at different depth during drilling, List Below

ft. G.P.M.
ft. G.P.M.
ft. G.P.M.

WATER ANALYSIS: Has water been analyzed? ☐ Yes ☑ No If Yes, Where
Include Analysis

DRILLED BY: N.A. Manosh (Signature)

DOING BUSINESS AS: N.A. Manosh Corp (Company)

DATE OF REPORT: 3/5/75 WELL DRILLERS LICENSE NO. 8

5M 12-73

WELL NUMBER
162
(For Driller's Use)

1267

WR 245 USGS MJW 228
Field Loc ☑ Map Des 12 B-7
La. 44°37'12" Alt 330 TS T
Lo. 73°07'52" 1 HU 02010005
Scale: 62500☐, 25000☐, 24000☒

State of Vermont
DEPARTMENT OF WATER RESOURCES

WELL COMPLETION REPORT

(This report must be completed and submitted to the Department of Water Resources, State Office Building, Montpelier, Vermont 05602, no later than 60 days after completion of well. Complete or line out all blanks.)

DO NOT FILL IN
#245

JAN 27 1978

WELL OWNER Gillian Labelle (Name) Milton, Vt (Mailing Address)

TOWN IN WHICH WELL IS LOCATED: same

DATE WELL WAS COMPLETED: 9/23/77

(Please locate well on a large scale map to accompany this report. Maps are available on request.)

PROPOSED USE OF WELL: ☒ Domestic ☐ Agricultural ☐ Business Establishment ☐ Municipal ☐ Industrial ☐ Other (Specify)

DRILLING EQUIPMENT: ☒ Cable Tool ☐ Rotary ☐ Air Percussion ☐ Other (Specify)

TOTAL DEPTH OF WELL: 177' STATIC WATER LEVEL: 55'

CASING DETAILS: Length 176 ft. Diameter 6 in. Material steel
Weight 17 lb./ft.

SCREEN DETAILS: Make none Material Length ft.
Diameter in. Slot Size

METHOD OF SEALING CASING TO SCREEN OR BEDROCK: drive shoe

FINAL YIELD TEST: ☒ Bailed, or ☐ Pumped, or ☐ Compressed Air
5 Hours at 30 gallons per minute
Water level during yield test 150

WELL LOG

Depth From Ground Surface

Give description of formations penetrated, such as: peat, silt, sand, gravel, clay, hardpan, shale, limestone, granite, etc. Include size of gravel (diameter) and sand (fine, medium, coarse, color of material, structure (loose, packed, cemented, hard). For example: Surface to 27 ft. fine, packed, yellow sand; to 134 ft. gray granite.

Surface to 10 ft. sand
10 to 160 ft. gray clay
160 to 168 ft. sand & gravel
168 to 177 ft. shale slate
to ft.

YIELD TEST DATA IN G.P.M.
If yield was tested at different depth during drilling, List Below

172 ft. 30 G.P.M.
ft. G.P.M.
ft. G.P.M.

WATER ANALYSIS: Has water been analyzed? ☐ Yes ☒ No If Yes, Where
Include Analysis

DRILLED BY: Calvin Rabtoy Calvin Rabtoy
Signature

DOING BUSINESS AS: C. & F. RABTOY WATER WELL DRILLING
Company

DATE OF REPORT: 1/9/78 WELL DRILLERS LICENSE NO. 41

5M 7-73

WELL NUMBER

336

(For Driller's Use)

12A9

VR 280 USGS MTW 18
Field Loc ☑ Map Des 12 A-9
La. 44°37'31" Alt 325 TS T
Lo. 73°07'54" 1 HU 02010005
Scale: 62500 ☐, 25000 ☐, 24000 ☒

State of Vermont
DEPARTMENT OF WATER RESOURCE

WELL COMPLETION REPORT

(This report must be completed and submitted to the Department of Water Resources, State Office Building, Montpelier, Vermont 05602, no later than 60 days after completion of well. Complete or line out all blanks.)

DO NOT FILL IN
280

OCT 23 1978

WELL OWNER: Milton Child Co. (Name) — RD 3 Milton, Vt. ATTN: Mike Mask (Mailing Address)

TOWN IN WHICH WELL IS LOCATED: Same

DATE WELL WAS COMPLETED: 8/14/78

(Please locate well on a large scale map to accompany this report. Maps are available on request.)

PROPOSED USE OF WELL: ☐ Domestic ☐ Agricultural ☐ Business Establishment ☑ Municipal ☐ Industrial ☐ Other (Specify)

DRILLING EQUIPMENT: ☐ Cable Tool ☐ Rotary ☑ Air Percussion ☐ Other (Specify)

TOTAL DEPTH OF WELL: 449 STATIC WATER

CASING DETAILS: Length 108 ft. Diameter 6 in. Material Steel
Weight ... lb./ft.

SCREEN DETAILS: Make ... Material ... Length ... ft.
Diameter ... in. Slot Size ...

METHOD OF SEALING CASING TO SCREEN OR BEDROCK: Butler Larkin Well Seal

FINAL YIELD TEST: ☐ Bailed, or ☐ Pumped, or ☑ Compressed Air
1 Hours at 20 gallons per minute
Water level during yield test ...

WELL LOG

Depth From Ground Surface

Give description of formations penetrated, such as: peat, silt, sand, gravel, clay, hardpan, shale, limestone, granite, etc. Include size of gravel (diameter) and sand (fine, medium, coarse, color of material, structure (loose, packed, cemented, hard). For example: Surface to 27 ft. fine, packed, yellow sand; 27 ft. to 134 ft. gray granite.

Surface to 20 ft. Brown Sand
20 to 60 ft. Clay
60 to 106 ft. Gray Sand
106 to 448 ft. Green Bedrock
448 - 449 Water

YIELD TEST DATA IN G.P.M.
If yield was tested at different depths during drilling, List Below

G.P.M. @	ft.	G.P.M. @	ft.
G.P.M. @	ft.	G.P.M. @	ft.

WATER ANALYSIS: Has water been analyzed? ☐ Yes ☑ No If Yes, Where
Include Analysis

DRILLED BY: H. A. Manosh (Signature)

DOING BUSINESS AS: H. A. Manosh Corp. (Company)

DATE OF REPORT: 8/24/78 WELL DRILLERS LICENSE NO. 8

5M 6-76

WELL NUMBER

233 B

(For Driller's Use)

This report must be completed and submitted to the Department of Water Resources and Environmental Engineering, State Office Building, Montpelier, Vermont 05602, no later than 60 days after completion of the well.

State of Vermont

DEPARTMENT OF WATER RESOURCES AND ENVIRONMENTAL ENGINEERING

WELL COMPLETION REPORT

DEC 10 1984

Location map attached to WCR 513

WATER RESOURCE USE ONLY

W.R. 517 U.S.G.S.

Field Location ☐ Map area 1287

Latitude ° ' " Elev.

Longitude ° ' " Topo.

Scale: 62,500 ☐, 25,000 ☐, 24,000 ☐

Data in Town Files ☐

1. WELL OWNER Mike Cook/Mrs Michael J. Cote (Name) 1 Pine Crest Lane Milton (Permanent Mailing Address) 0546,

OR

WELL PURCHASER (Name) (Permanent Mailing Address)

2. LOCATION OF WELL: TOWN Milton SUBDIVISION LOT NO.

3. DATE WELL WAS COMPLETED 19 Nov 84

4. PROPOSED USE OF WELL: ☒ Domestic, ☐ Other

5. REASON FOR DRILLING WELL: ☐ New Supply, ☒ Replace Existing Supply, ☐ Deepen Existing Well, ☐ Test or Exploration, ☐ Provide Additional Supply, ☐ Other

6. DRILLING EQUIPMENT: ☐ Cable Tool, ☒ Rotary with A-P, ☐ Other

7. TYPE OF WELL: ☐ Open Hole in Bedrock, ☒ Open End Casing, ☐ Screened or Slotted; ☐ Other

8. TOTAL DEPTH OF WELL: 197 feet below land surface.

9. CASING FINISH: ☒ Above ground, Finished, ☐ Above ground, Unfinished, ☐ Buried, ☐ in Pit, ☐ Removed, ☐ None used, ☐ Other

10. CASING DETAILS: Total length 196 ft. Length below L.S. 194 ft. Dia. 6 in. Material Steel Wt. 19 lb./ft.

11. LINER OR INNER CASING DETAILS: Length used ft. Diameter in. Material Weight lb./ft.

12. METHOD OF SEALING CASING TO BEDROCK: ☒ Drive Shoe, ☐ Grout – type , Drilled in. hole ft. in Bedrock ☐ Other

13. SCREEN DETAILS: Make and Type , Material , Length ft., Diameter i

Slot Size , Depth to top of screen in feet below land surface ft., Gravel pack if used: Gravel Size or Type

14. YIELD TEST: ☐ Bailed, ☐ Pumped, ☒ Compressed Air, for 1 Hours at 45 Gallons per minute

Measured by ☒ Bucket, ☐ Orifice pipe, ☐ Weir, ☐ Meter ☐ Permanent Airline Install

15. STATIC WATER LEVEL: feet below land surface, Date or Time measured , Overflows at G.P.M.

16. WATER ANALYSIS: Has the water been analyzed? ☐ Yes ☐ No, If Yes, Where

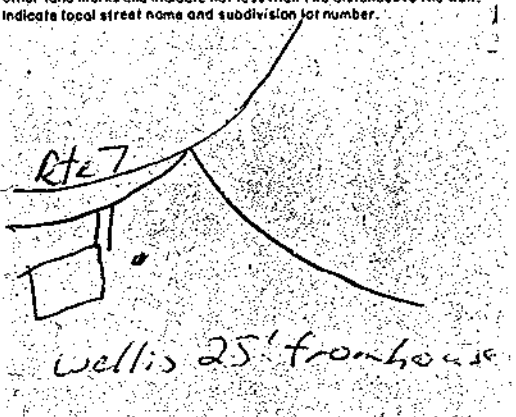
17. SPECIAL NOTES:

18. WELL LOG

Depth from Land Surface Feet	Depth from Land Surface Feet	Water Bearing	Formation Description	Sketch
Ground Surface	30		Sand & Silt	
30	190		Blue Clay	
190	197		Gravel	

19. SITE MAP

Show permanent structure such as buildings, septic tanks, and/or other land marks and indicate not less than two distances to the well. Indicate local street name and subdivision lot number.



20. TESTED YIELD

If the yield was tested at different depths during drilling, list below.

Feet	Gallons Per Minute

WELL DRILLED BY: Mark & Claude

DOING BUSINESS AS: Chevalier Drilling Co. Inc (Company or Business Name)

REPORT FILED BY: Claude E. Chevalier (Authorized Signature)

DATE OF REPORT: 19 Nov 84 WELL DRILLERS LIC. NO. 36

WELL NUMBER

158 F
(For Driller's Use)

This report must be completed and submitted to the Department of Water Resources and Environmental Engineering, State Office Building, Montpelier, Vermont 05602, no later than 60 days after completion of the well.

State of Vermont
DEPARTMENT OF WATER RESOURCES
AND ENVIRONMENTAL ENGINEERING
WELL COMPLETION REPORT

Location map attached to WCR ______

WATER RESOURCE USE ONLY
W.R. 606 U.S.G.S. ______
Field Location ☐ Map area 1267
Latitude ___° ___' ___" Elev. ______
Longitude ___° ___' ___" Topo. ______
Scale: 62,500 ☐, 25,000 ☐, 24,000 ☐
Data In Town Files ☐

1. WELL OWNER Shirley + Madeline Minor (Name) Box 54 Westford RR#1 (Permanent Mailing Address)
OR
WELL PURCHASER ______ (Name) ______ (Permanent Mailing Address)

2. LOCATION OF WELL: TOWN Milton SUBDIVISION ______ LOT NO. ______

3. DATE WELL WAS COMPLETED 24 Sept 86

4. PROPOSED USE OF WELL: ☐ Domestic, ☐ Other funeral home

5. REASON FOR DRILLING WELL: ☒ New Supply, ☐ Replace Existing Supply, ☐ Deepen Existing Well, ☐ Test or Exploration, ☐ Provide Additional Supply, ☐ Other ______

6. DRILLING EQUIPMENT: ☐ Cable Tool, ☒ Rotary with A-P, ☐ Other ______

7. TYPE OF WELL: ☐ Open Hole in Bedrock, ☒ Open End Casing, ☐ Screened or Slotted, ☐ Other ______

8. TOTAL DEPTH OF WELL: 218 feet below land surface.

9. CASING FINISH: ☒ Above ground, Finished, ☐ Above ground, Unfinished, ☐ Buried, ☐ In Pit, ☐ Removed, ☐ None used, ☐ Other ______

10. CASING DETAILS: Total length 218 ft. Length below L.S. 217 ft. Dia. 6 in. Material steel Wt. 19 lb./ft.

11. LINER OR INNER CASING DETAILS: Length used ______ ft. Diameter ______ in. Material ______ Weight ______ lb./ft.

12. METHOD OF SEALING CASING TO BEDROCK: ☒ Drive Shoe, ☐ Grout - type ______, Drilled ____ in. hole ____ ft. in Bedrock
☐ Other finished in gravel

13. SCREEN DETAILS: Make and Type ______, Material ______, Length ______ ft., Diameter ______ in., Slot Size ______, Depth to top of screen in feet below land surface ______ ft., Gravel pack if used: Gravel Size or Type ______

14. YIELD TEST: ☐ Bailed, ☐ Pumped, ☒ Compressed Air, for 1 hours at 100 Gallons per minute
Measured by ☒ Bucket, ☐ Orifice pipe, ☐ Wier, ☐ Meter ☐ Permanent Airline installed

15. STATIC WATER LEVEL: ______ feet below land surface, Date or Time measured ______, Overflows at ______ G.P.M.

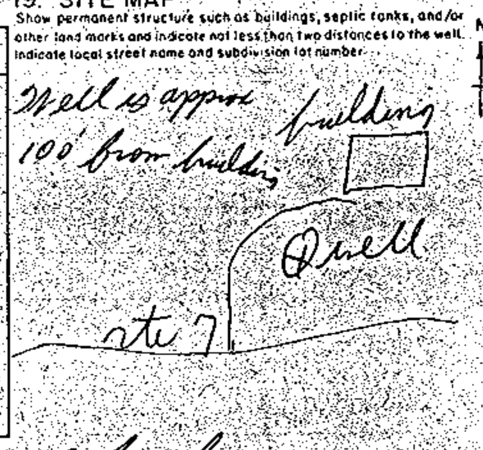
16. WATER ANALYSIS: Has the water been analyzed? ☐ Yes ☐ No, If Yes, Where ______

17. SPECIAL NOTES: ______

18. WELL LOG

Depth from Land Surface Feet	Feet	Water Bearing	Formation Description	Sketch
Ground Surface	90		Fine Brown sand	
90	150		Fine silt	
150	212		Heavy gray clay	
212	218		Gravel	

19. SITE MAP
Show permanent structure such as buildings, septic tanks, and/or other land marks and indicate not less than two distances to the well. Indicate local street name and subdivision lot number.



20. TESTED YIELD
If the yield was tested at different depths during drilling, list below

Feet	Gallons Per Minute

WELL DRILLED BY: David Chevalier

DOING BUSINESS AS: Chevalier Drilling Co (Company or Business Name)

REPORT FILED BY: David Chevalier (Authorized Signature)

DATE OF REPORT: 24 Sept 86 WELL DRILLERS LIC. NO. 36

WELL NO. / TAG NO. 26E
(For Driller's Use)

This report must be completed and submitted to the Department of Environmental Conservation 103 South Main Street (10N), Waterbury, Vt. 05676 no later than 60 days after completion of the well.

State of Vermont
Dept. of Environmental Conservation
103 South Main Street (10N)
Waterbury, Vt. 05676

WELL COMPLETION REPORT

MAR 17 1988

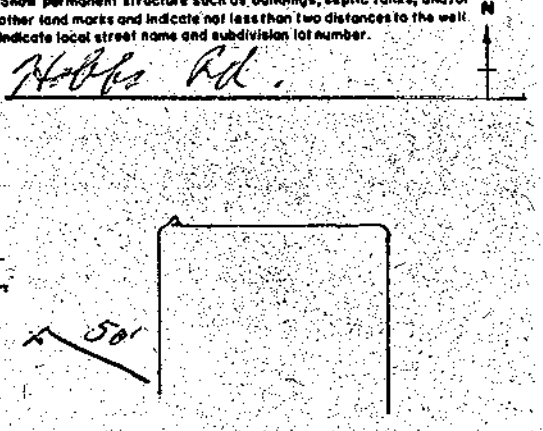
Location map attached to WCR ____

DEPARTMENT USE ONLY
E. 683 U.S.G.S. ____
Field Location ☐ Map area 12C3
Latitude ____ ° ____ ' ____ " Elev. ____
Longitude ____ ° ____ ' ____ " Topo. ____
Scale: 62,500 ☐, 25,000 ☐, 24,000 ☐
Data in Town Files ☐

1. WELL OWNER Bernard Farnsworth (Name) N. Rd. Milton (Permanent Mailing Address)
   OR
   WELL PURCHASER Same (Name) Hobbs Rd Milton (Permanent Mailing Address)
2. LOCATION OF WELL: TOWN Milton SUBDIVISION ____ LOT NO. ____
3. DATE WELL WAS COMPLETED 2/16/88
4. PROPOSED USE OF WELL: ☑ Domestic, ☐ Other ____
5. REASON FOR DRILLING WELL: ☐ New Supply, ☑ Replace Existing Supply, ☐ Deepen Existing Well, ☐ Test or Exploration, ☐ Provide Additional Supply, ☐ Other ____
6. DRILLING EQUIPMENT: ☑ Cable Tool, ☐ Rotary with A-P, ☐ Other ____
7. TYPE OF WELL: ☐ Open Hole in Bedrock, ☑ Open End Casing, ☐ Screened or Slotted, ☐ Other ____
8. TOTAL DEPTH OF WELL: 100 feet below land surface.
9. CASING FINISH: ☑ Above ground, Finished, ☐ Above ground, Unfinished, ☐ Buried, ☐ In Pit, ☐ Removed, ☐ None used, ☐ Other ____
10. CASING DETAILS: Total length 103 ft. Length below L.S. 101 ft. Dia. 6 in. Material Steel Wt. 17 lb./ft.
11. LINER OR INNER CASING DETAILS: Length used ____ ft. Diameter ____ in. Material ____ Weight ____ lb./ft.
12. METHOD OF SEALING CASING TO BEDROCK: ☐ Drive Shoe, ☐ Grout – type ____, Drilled ____ in. hole ____ ft. in Bedrock ☐ Other Open end gravel wtr.
13. SCREEN DETAILS: Make and Type ____, Material ____, Length ____ ft., Diameter ____ in., Slot Size ____, Depth to top of screen in feet below land surface ____ ft., Gravel pack if used: Gravel Size or Type ____
14. YIELD TEST: ☑ Bailed, ☐ Pumped, ☐ Compressed Air, for 2 Hours at 26 Gallons per minute
    Measured by ☐ Bucket, ☐ Orifice pipe, ☐ Weir, ☐ Meter ☐ Permanent Airline installed
15. STATIC WATER LEVEL: 53 feet below land surface, Date or Time measured ____, Overflows at ____ G.P.M.
16. WATER ANALYSIS: Has the water been analyzed? ☐ Yes ☑ No, If Yes, Where ____
17. SPECIAL NOTES: well none to filter. Sulphur & color.
18. WELL LOG

Depth from Land Surface: Feet	Feet	Water Bearing	Formation Description	Sketch
Ground Surface	40	22'	Hard packed Sand.	
40	60		Blue Clay	
60	80.		Quick sand.	
80.	95		Hard pan.	
95	101		Hard pack Sand bot of well	

19. SITE MAP
Show permanent structure such as buildings, septic tanks, and/or other land marks and indicate not less than two distances to the well. Indicate local street name and subdivision lot number.



20. TESTED YIELD
If the yield was tested at different depths during drilling, list below.

Feet	Gallons Per Minute

WELL DRILLED BY: A. Yocum
DOING BUSINESS AS: H.A. Yocum & Sons (Company or Business Name)
REPORT FILED BY: H.A. Yocum (Authorized Signature)
DATE OF REPORT: 3/1/88 WELL DRILLERS LIC. NO. 125

WELL NO. / TAG NO. 280/-183A (For Driller's Use)

This report must be completed and submitted to the Department of Environmental Conservation (103 South Main Street (10N), Waterbury, Vt 05676 no later than 60 days after completion of the well

State of Vermont
Dept. of Environmental Conservation
103 South Main Street (10N)
Waterbury, Vt. 05676
WELL COMPLETION REPORT

NOV 18 1988

Location map attached to WCR 685

DEPARTMENT USE ONLY
E.C. 189 U.S.G.S.
Field Location ☐ Map area 72D1
Latitude ° ' " Elev.
Longitude ° ' " Topo.
Scale: 62,500 ☐, 25,000 ☐, 24,000 ☐
Data in Town Files ☐

1. WELL OWNER (Name, Permanent Mailing Address)
OR
WELL PURCHASER Don Turner, P.O. Box 24 Milton, VT 05468 (Name, Permanent Mailing Address)

2. LOCATION OF WELL: TOWN Milton SUBDIVISION LOT NO.

3. DATE WELL WAS COMPLETED 14 Oct 88

4. PROPOSED USE OF WELL: ☒ Domestic, ☐ Other

5. REASON FOR DRILLING WELL: ☒ New Supply, ☐ Replace Existing Supply, ☐ Deepen Existing Well, ☐ Test or Exploration, ☐ Provide Additional Supply, ☐ Other

6. DRILLING EQUIPMENT: ☐ Cable Tool, ☒ Rotary with A-P, ☐ Other

7. TYPE OF WELL: ☐ Open Hole in Bedrock, ☒ Open End Casing, ☐ Screened or Slotted; ☐ Other

8. TOTAL DEPTH OF WELL: 248 feet below land surface.

9. CASING FINISH: ☒ Above ground, Finished, ☐ Above ground, Unfinished, ☐ Buried, ☐ In Pit, ☐ Removed, ☐ None used, ☐ Other

10. CASING DETAILS: Total length 237 ft. Length below L.S. 236 ft. Dia. 6 in. Material steel Wt. 19 lb./ft.

11. LINER OR INNER CASING DETAILS: Length used ft. Diameter in. Material Weight lb./ft.

12. METHOD OF SEALING CASING TO BEDROCK: ☒ Drive Shoe, ☐ Grout - type , Drilled in. hole ft. in Bedrock ☐ Other Formed in Gravel

13. SCREEN DETAILS: Make and Type , Material , Length ft., Diameter in. Slot Size , Depth to top of screen in feet below land surface ft., Gravel pack if used: Gravel Size or Type

14. YIELD TEST: ☐ Bailed, ☐ Pumped, ☒ Compressed Air, for ½ Hours at 15 Gallons per minute
Measured by ☒ Bucket, ☐ Orifice pipe, ☐ Weir, ☐ Meter ☐ Permanent Airline Installed

15. STATIC WATER LEVEL: feet below land surface, Date or Time measured , Overflows at G.P.M.

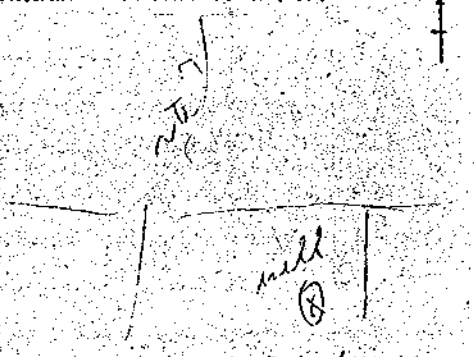
16. WATER ANALYSIS: Has the water been analyzed? ☐ Yes ☐ No, If Yes, Where

17. SPECIAL NOTES:

18. WELL LOG

Depth from Land Surface Feet	Depth from Land Surface Feet	Water Bearing	Formation Description	Sketch
Ground Surface	30		Sand	
30	230		Blue Clay	
230	248		Gravel	

19. SITE MAP
Show permanent structure such as buildings, septic tanks, and/or other land marks and indicate not less than two distances to the well indicate local street name and subdivision lot number.



20. TESTED YIELD
If the yield was tested at different depths during drilling, list below

Feet	Gallons Per Minute

WELL DRILLED BY: David Cheralu

DOING BUSINESS AS: Cheralu Drilling Co. (Company or Business Name)

REPORT FILED BY: David Cheralu (Authorized Signature)

DATE OF REPORT: 17 Oct 88 WELL DRILLERS LIC. NO. 36

WELL NO. / TAG NO. 186 (For Driller's Use)

This report must be completed and submitted to the Department of Environmental Conservation 103 South Main Street (10N), Waterbury, Vt 05676 no later than 60 days after completion of the well.

State of Vermont
Dept. of Environmental Conservation
103 South Main Street (10N)
Waterbury, Vt. 05676

WELL COMPLETION REPORT

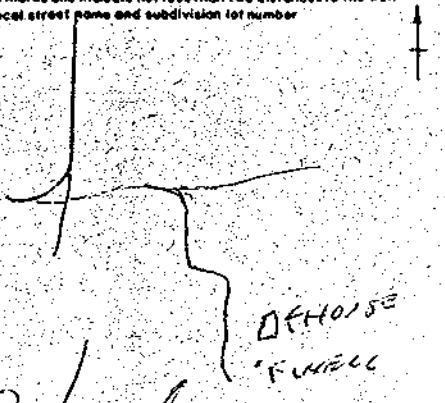
OCT 19 1989

DEPARTMENT USE ONLY
E.C. 751 U.S.G.S. _____
Field Location Map area 1201
Latitude _____ ° ' " Elev. _____
Longitude _____ ° ' " Topo. _____
Scale: 62,500 □, 25,000 □, 24,000 □
Location map attached to WCR 750 Data in Town Files □

1. WELL OWNER Donald Turner, P.O. Box 441, Milton, VT 05468
   (Name, Permanent Mailing Address)
   OR
   WELL PURCHASER _____ (Name, Permanent Mailing Address)
2. LOCATION OF WELL: TOWN Milton SUBDIVISION _____ LOT NO. _____
3. DATE WELL WAS COMPLETED 7/10/89
4. PROPOSED USE OF WELL: [X] Domestic, □ Other WELL AS ABANDONED
5. REASON FOR DRILLING WELL: [X] New Supply, [X] Replace Existing Supply, □ Deepen Existing Well, □ Test or Exploration, □ Provide Additional Supply, □ Other _____
6. DRILLING EQUIPMENT: □ Cable Tool [X] Rotary with A-P, □ Other _____
7. TYPE OF WELL: [X] Open Hole in Bedrock, □ Open End Casing, □ Screened or Slotted, □ Other _____
8. TOTAL DEPTH OF WELL: 620 feet below land surface.
9. CASING FINISH: [X] Above ground, Finished, □ Above ground, Unfinished, □ Buried, □ In Pit, □ Removed, □ None used, □ Other _____
10. CASING DETAILS: Total length 308 ft. Length below L.S 306 ft. Dia. 6 in. Material steel Wt. 19 lb./ft.
11. LINER OR INNER CASING DETAILS: Length used _____ ft. Diameter _____ in. Material _____ Weight _____ lb./ft.
12. METHOD OF SEALING CASING TO BEDROCK: [X] Drive Shoe, [X] Grout - type Neat, Drilled _____ in. hole, _____ ft in Bedrock, □ Other casing driven 2' into ledge
13. SCREEN DETAILS: Make and Type _____, Material _____, Length _____ ft., Diameter _____ in., Slot Size _____, Depth to top of screen in feet below land surface _____ ft., Gravel pack if used: Gravel Size or Type _____
14. YIELD TEST: □ Bailed, □ Pumped, [X] Compressed Air, for 1 Hours at 4 Gallons per minute
    Measured by □ Bucket, [X] Orifice pipe, □ Weir, □ Meter □ Permanent Airline installed
15. STATIC WATER LEVEL: _____ feet below land surface, Date or Time measured _____, Overflows at _____ G P M
16. WATER ANALYSIS: Has the water been analyzed? □ Yes □ No, If Yes, Where _____
17. SPECIAL NOTES: Well Abandoned - Filled with Grout - Top 72' casing removed
18. WELL LOG

Depth from Land Surface Feet	Depth from Land Surface Feet	Water Bearing	Formation Description	Sketch
Ground Surface	40		sand	
40	210		blue clay	
210	230		sharp gravel	
230	304		hard rock gravel	
304	350		broken ledge layers	
350	620		strong rock	

19. SITE MAP
Show permanent structure such as buildings, septic tanks, and/or other land marks and indicate not less than two distances to the well indicate local street name and subdivision lot number



20. TESTED YIELD
If the yield was tested at different depths during drilling, list below.

Feet	Gallons Per Minute

WELL DRILLED BY: Mark Chevalier
DOING BUSINESS AS: Chevalier Drilling Co., Inc. (Company or Business Name)
REPORT FILED BY: Mark Chevalier (Authorized Signature)
DATE OF REPORT: 7/16/89 WELL DRILLERS LIC NO. 36

WELL NO. / TAG NO. 244A.
(For Driller's Use)

This report must be completed and submitted to the Department of Environmental Conservation 103 South Main Street (10N), Waterbury, Vt. 05676 no later than 60 days after completion of the well.

State of Vermont
Dept. of Environmental Conservation
103 South Main Street (10N)
Waterbury, Vt. 05676

WELL COMPLETION REPORT

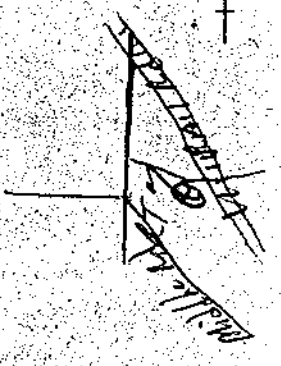
11/6/89
Location map attached to WCR ____

DEPARTMENT USE ONLY C
E.C. 756 U.S.G.S. ____
Field Location Map area 1201
Latitude ° ' N Elev. ____
Longitude ° ' N Topo. ____
Scale: 62,500 □, 25,000 □, 24,000 □
Data in Town Files □

1. WELL OWNER Name: Jack Bedwell Permanent Mailing Address: Milton, Vt.
   OR
   WELL PURCHASER Name: ____ Permanent Mailing Address: ____
2. LOCATION OF WELL: TOWN milton SUBDIVISION ____ LOT NO. ____
3. DATE WELL WAS COMPLETED 7-88
4. PROPOSED USE OF WELL: ☑ Domestic, □ Other ____
5. REASON FOR DRILLING WELL: ☑ New Supply, □ Replace Existing Supply, □ Deepen Existing Well, □ Test or Exploration, □ Provide Additional Supply, □ Other ____
6. DRILLING EQUIPMENT: □ Cable Tool, ☑ Rotary with A-P, □ Other ____
7. TYPE OF WELL: ☑ Open Hole in Bedrock, □ Open End Casing, □ Screened or Slotted, □ Other ____
8. TOTAL DEPTH OF WELL: 202 feet below land surface.
9. CASING FINISH: ☑ Above ground, Finished, □ Above ground, Unfinished, □ Buried, □ In Pit, □ Removed, □ None used, □ Other ____
10. CASING DETAILS: Total length 105 ft. Length below L.S. 103 ft. Dia. 6 in. Material Steel Wt. 17 lb./ft.
11. LINER OR INNER CASING DETAILS: Length used ____ ft. Diameter ____ in. Material ____ Weight ____ lb./ft.
12. METHOD OF SEALING CASING TO BEDROCK: ☑ Drive Shoe, □ Grout – type ____, Drilled ____ in. hole ____ ft. in Bedrock, □ Other ____
13. SCREEN DETAILS: Make and Type ____, Material ____, Length ____ ft., Diameter ____ in., Slot Size ____, Depth to top of screen in feet below land surface ____ ft., Gravel pack if used: Gravel Size or Type ____
14. YIELD TEST: □ Bailed, □ Pumped, ☑ Compressed Air, for 4 Hours at 4 Gallons per minute
    Measured by ☑ Bucket, □ Orifice pipe, □ Weir, □ Meter □ Permanent Airline Installed
15. STATIC WATER LEVEL: ____ feet below land surface, Date or Time measured ____, Overflows at ____ G.P.M.
16. WATER ANALYSIS: Has the water been analyzed? □ Yes ☑ No, If Yes, Where ____
17. SPECIAL NOTES: ____
18. WELL LOG

Depth from Land Surface Feet	Depth from Land Surface Feet	Water Bearing	Formation Description	Sketch
Ground Surface	98		Sand Gravel Clay	
98	103		Rock Hole	
103	202		Rock Hard	

19. SITE MAP
Show permanent structure such as buildings, septic tanks, and/or other land marks and indicate not less than two distances to the well. Indicate local street name and subdivision lot number.



20. TESTED YIELD
If the yield was tested at different depths during drilling, list below.

Feet	Gallons Per Minute

WELL DRILLED BY: Martin Babtay
DOING BUSINESS AS: Babtay & Sons
Company or Business Name
REPORT FILED BY: M. Babtay
Authorized Signature
DATE OF REPORT: 8-88 WELL DRILLERS LIC. NO. 41

WELL NO./TAG NO. 355 / 374A
(For Driller's Use)

This report must be completed and submitted to the Department of Environmental Conservation 103 South Main Street (10N), Waterbury, Vt 05676 no later than 60 days after completion of the well.

State of Vermont
Dept. of Environmental Conservation
103 South Main Street (10N)
Waterbury, Vt. 05676

WELL COMPLETION REPORT

MAR 15 1990

DEPARTMENT USE ONLY
E.C. 763 U.S.G.S.
Field Location & Map area 1201
Latitude ° ' " Elev.
Longitude ° ' " Topo.
Scale: 62,500 ☐, 25,000 ☐, 24,000 ☐
Location map attached to WCR 759 Data in Town Files ☐

1. WELL OWNER Marcel Dostie, 722 W. Milton Rd. Milton, VT 05468
Name — Present Mailing Address
OR
WELL PURCHASER
Name — Permanent Mailing Address

2. LOCATION OF WELL: TOWN Milton SUBDIVISION LOT NO.

3. DATE WELL WAS COMPLETED 27 Dec 89

4. PROPOSED USE OF WELL: ☒ Domestic, ☐ Other

5. REASON FOR DRILLING WELL: ☒ New Supply, ☐ Replace Existing Supply, ☐ Deepen Existing Well, ☐ Test or Exploration, ☐ Provide Additional Supply, ☐ Other

6. DRILLING EQUIPMENT: ☐ Cable Tool, ☒ Rotary with A-P, ☐ Other

7. TYPE OF WELL: ☐ Open Hole in Bedrock, ☒ Open End Casing, ☐ Screened or Slotted, ☐ Other

8. TOTAL DEPTH OF WELL: 269 feet below land surface.

9. CASING FINISH: ☒ Above ground, Finished, ☐ Above ground, Unfinished, ☐ Buried, ☐ In Pit, ☐ Removed, ☐ None used, ☐ Other

10. CASING DETAILS: Total length 269 ft Length below L.S 268 ft Dia. 6 in. Material steel Wt. 19 lb./ft

11. LINER OR INNER CASING DETAILS: Length used ft Diameter in. Material Weight lb./ft.

12. METHOD OF SEALING CASING TO BEDROCK: ☒ Drive Shoe, ☐ Grout - type , Drilled in. hole ft in Bedrock
☐ Other Finished in Gravel

13. SCREEN DETAILS: Make and Type , Material , Length ft., Diameter in.
Slot Size , Depth to top of screen in feet below land surface ft., Gravel pack if used: Gravel Size or Type

14. YIELD TEST: ☐ Bailed, ☐ Pumped, ☒ Compressed Air, for 1 Hours at 7 Gallons per minute
Measured by ☒ Bucket, ☐ Orifice pipe, ☐ Weir, ☐ Meter ☐ Permanent Airline installed

15. STATIC WATER LEVEL: feet below land surface, Date or Time measured , Overflows at GPM

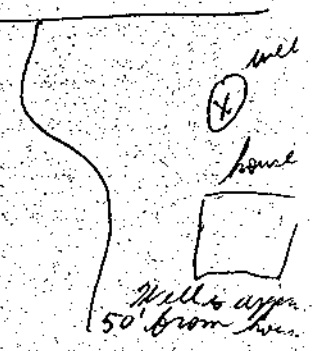
16. WATER ANALYSIS: Has the water been analyzed? ☐ Yes ☐ No, If Yes, Where

17. SPECIAL NOTES:

18. WELL LOG

Depth from Land Surface Feet	Depth from Land Surface Feet	Water Bearing	Formation Description	Sketch
Ground Surface	50		Fine Sand	
50	215		Blue Clay	
215	223		Gravel	
223	248		Dense Till	
248	249		Thin Layer of Gravel	
249	269		Dense Till	
			Casing perforated 220' to	
			223'	

19. SITE MAP
Show permanent structure such as buildings, septic tanks, and/or other land marks and indicate not less than two distances to the well. Indicate local street name and subdivision lot number.



20. TESTED YIELD
If the yield was tested at different depths during drilling, list below.

Feet	Gallons Per Minute

WELL DRILLED BY: Dana Chevalier
DOING BUSINESS AS: Chevalier Drilling Co., Inc.
Company or Business Name
REPORT FILED BY: Dana Chevalier
Authorized Signature
DATE OF REPORT: 29 Dec 89 WELL DRILLERS LIC. NO. 36

WELL NO. / TAG NO.
OBO609 2493
(For Driller's Use)

This report must be completed and submitted to the Department of Environmental Conservation 103 South Main Street (10N), Waterbury, VT 05676 no later than 60 days after completion of the well.

State of Vermont
Dept. of Environmental Conservation
103 South Main Street (10N)
Waterbury, Vt. 05676

WELL COMPLETION REPORT

OCT 5 1993

Location map attached to WCR ____

DEPARTMENT USE ONLY
E.C. 855 U.S.G.S. ____
Field Location ☐ Map area 12A9
Latitude ____ ° ____ ' ____ " Elev. ____
Longitude ____ ° ____ ' ____ " Topo. ____
Scale: 62,500 ☐, 25,000 ☐, 24,000 ☐
Data in Town Files ☐ ____

1. WELL OWNER Birchwood Trailer Park King St. Dock Burlington, VT 054
(Name) (Permanent Mailing Address)
OR
WELL PURCHASER ____
(Name) (Permanent Mailing Address)

2. LOCATION OF WELL: TOWN Milton SUBDIVISION ____ LOT NO. ____

3. DATE WELL WAS COMPLETED 9-24-93

4. PROPOSED USE OF WELL: ☑ Domestic, ☑ Other ~~Domestic~~ 50' Deeper

5. REASON FOR DRILLING WELL: ☐ New Supply, ☐ Replace Existing Supply, ☑ Deepen Existing Well, ☐ Test or Exploration, ☐ Provide Additional Supply, ☐ Other ____

6. DRILLING EQUIPMENT: ☐ Cable Tool, ☑ Rotary with A-P, ☐ Other ____

7. TYPE OF WELL: ☑ Open Hole in Bedrock, ☐ Open End Casing, ☐ Screened or Slotted, ☐ Other ____

8. TOTAL DEPTH OF WELL: 274 feet below land surface.

9. CASING FINISH: ☐ Above ground, Finished, ☐ Above ground, Unfinished, ☐ Buried, ☐ In Pit, ☐ Removed, ☐ None used, ☐ Other ____

10. CASING DETAILS: Total length ____ ft. Length below L.S ____ ft. Dia. ____ in. Material ____ Wt. ____ lb./ft.

11. LINER OR INNER CASING DETAILS: Length used ____ ft. Diameter ____ in. Material ____ Weight ____ lb./ft.

12. METHOD OF SEALING CASING TO BEDROCK: ☐ Drive Shoe, ☐ Grout - type ____, Drilled ____ in. hole ____ ft. in Bedrock ☐ Other ____

13. SCREEN DETAILS: Make and Type ____, Material ____, Length ____ ft., Diameter ____ Slot Size ____, Depth to top of screen in feet below land surface ____ ft., Gravel packed: Gravel Size or Type ____

14. YIELD TEST: ☐ Bailed, ☐ Pumped, ☑ Compressed Air, for 1 Hours at 10± Gallons per minute
Measured by ☑ Bucket, ☐ Orifice pipe, ☐ Weir, ☐ Meter ☐ Permanent devices exist

15. STATIC WATER LEVEL: ____ feet below land surface, Date or Time measured ____, Overflows at ____ G.P.M.

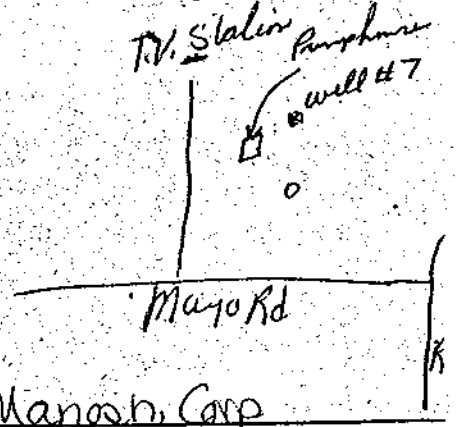
16. WATER ANALYSIS: Has the water been analyzed? ☐ Yes ☐ No. If Yes, Where ____

17. SPECIAL NOTES: ____

18. WELL LOG

Depth from Land Surface Feet	Depth from Land Surface Feet	Water Bearing	Formation Description	Sketch
BTA				
224	274		med. gray bedrock	

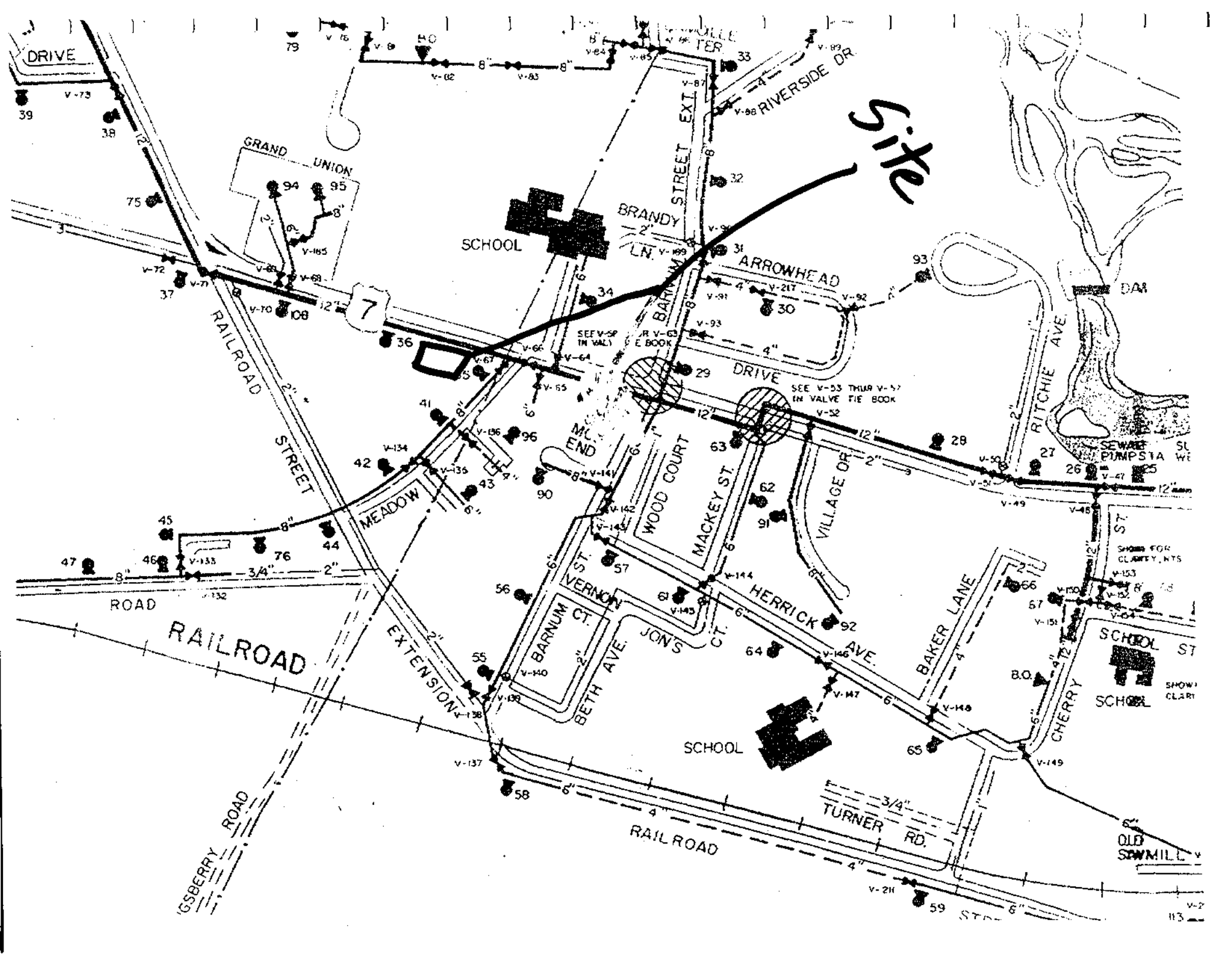
19. SITE MAP
Show permanent structures such as buildings, septic tanks, and/or other land marks and indicate not less than two distances to the well. Indicate local street name and subdivision lot number.



20. TESTED YIELD
If this yield was tested at different depths during drilling, list below.

Feet	Gallons Per Minute

WELL DRILLED BY: H.A. Manson, Corp
DOING BUSINESS AS: H.A. Manson, Corp
(Company or Business Name)
REPORT FILED BY: Kimberly A. Manson
(Authorized Signature)
DATE OF REPORT: 10/1/93 WELL DRILLERS LIC. NO. 8


Site
DRIVE
RIVERSIDE DR.
GRAND UNION
SCHOOL
BRANDY
LN.
STREET EXT.
ARROWHEAD
DRIVE
DAM
RITCHIE AVE.
SEE V-53 THUR V-57 IN VALVE FIE BOOK
V-52
SEWAGE PUMPSTA
RAILROAD STREET
MEADOW
WOOD COURT
MACKEY ST.
VILLAGE DR.
VERNON ST.
BARNUM CT.
BETH AVE.
JON'S CT.
HERRICK AVE.
BAKER LANE
CHERRY
SCHOOL ST
SCHOOL
ROAD
RAILROAD
EXTENSION
TURNER RD.
RAILROAD
OLD SAWMILL
SHOWN FOR CLARITY, NTS

APPENDIX C:

Monitoring Well Logs

SOIL BORING/MONITORING WELL CONSTRUCTION LOG

Well/Boring ID: MW-1

Project Name: S.B. Collins/Milton Mid-Town Mobil	WELL CONSTRUCTION
Project Number: 04-04	Total Depth Drilled: 25' BGS
Driller: Tri-State Drilling & Boring	Screen Type/Interval: 2" PVC, 10-slot from 14.3 - 24.3 BGS
Drilling Method: 4.25" ID HSA	Sandpack Type/Interval: coarse sand, 13.0-25' BGS
Geologist: J. Hoffer	Riser Type/Interval: 2" PVC from -0.47-14.3' BGS
Sampling Method: 2" split spoon	Seal Type/Interval: bentonite gravel, 7.25-13.0' BGS
Date/Time Started: 11/2/93, 0900	Measuring Point/Stickup: top of PVC Casing, flushmount
Date/Time Completed: 11/2/93, 1045	Water Level/Date/Time: 18.84 feet BTOC, 11/3/93
Weather: 30 degrees, sunny, windy	Elevation of Top of PVC: 95.71' relative to on-site benchmark
Surface Conditions: pavement	Well Development: Air-displacement pump, 1/2 hour

Split-Spoon Depth (feet)	Sample Blows (per 6")	Sample Recovery (feet)	Sample Description (color, texture, etc.)	PID* Reading (ppm)
5 - 7	4/8/7/12	1.4	Yellowish-brown medium sand (15% coarse), dry	0.4
10 - 12	4/4/5/5	1.5	Yellowish-brown medium sand, well-rounded, dry	0.3
15 - 17	2/4/8/7	1.2	Yellowish-brown fine/medium sand, dry, 2" layer of brown silt loam near top of spoon, moist	0.2
20 - 22	6/9/13/15	1.5	Brown fine/medium sand, saturated	0.2
25 - 27	3/5/5/10	1.8	Brown fine sand and silty sand, saturated	0.2

GENERALIZED GEOLOGIC LOG and OTHER OBSERVATIONS

0-0.5' pavement and sub-base material

0.5-15' medium sands, dry

15-25' fine/medium sands, finer-grained sands and increasing silt content with depth, water table between 17 and 20 feet BGS

NOTES:

* Peak Headspace Reading, Photovac MicroTIP HL-2000

BGS - Below Ground Surface, BTOC - Below Top of Casing, f/c - fine to coarse, m/c - medium to coarse.

SOIL BORING/MONITORING WELL CONSTRUCTION LOG

Well/Boring ID: MW-2

Project Name: S.B. Collins/Milton Mid-Town Mobil	WELL CONSTRUCTION
Project Number: 04-04	Total Depth Drilled: 25' BGS
Driller: Tri-State Drilling & Boring	Screen Type/Interval: 2" PVC, 10-slot from 14.0-24.0 BGS
Drilling Method: 4.25" ID HSA	Sandpack Type/Interval: coarse sand, 12.25-25.0' BGS
Geologist: J. Hoffer	Riser Type/Interval: 2" PVC from -0.38 - 14.0' BGS
Sampling Method: 2" split spoon	Seal Type/Interval: bentonite gravel, 6.5-12.25' BGS
Date/Time Started: 11/2/93, 1120	Measuring Point/Stickup: top of PVC Casing, flushmount
Date/Time Completed: 11/2/93, 1400	Water Level/Date/Time: 18.75 feet BTOC, 11/3/93
Weather: 30 degrees, sunny, windy	Elevation of Top of PVC: 95.27' relative to on-site benchmark
Surface Conditions: pavement	Well Development: Air-displacement pump, 1/2 hour

Split-Spoon Depth (feet)	Sample Blows (per 6")	Sample Recovery (feet)	Sample Description (color, texture, etc.)	PID* Reading (ppm)
5 - 7	7/6/6/12	1.5	top 0.75', coarse sand bottom 0.75', light brown medium/coarse sand	0.0
10 - 12	3/5/5/5	1.5	Light brown medium/coarse sand, well-rounded, dry	0.0
15 - 17	5/6/8/6	1.0	top 0.5', white fine sand, dry bottom 0.5', brown fine sand with silt, moist, petro odor	 162
20 - 22	3/6/7/8	1.4	top 0.5', brown silt loam, wet bottom 0.9', brown fine sand, some silt, no odor	 0.7
25 - 27	4/5/5/6	1.2	brown medium/coarse sand, uniform, well-rounded	0.0

GENERALIZED GEOLOGIC LOG and OTHER OBSERVATIONS

0-0.5' pavement and sub-base material
0.5 - 12' medium/coarse sands, dry
15' white fine sand, dry
16' fine sand and silt, moist, petro odor
20' fine sand/silt, saturated
25' medium/coarse sands, wet
water table between 17 and 20 feet BGS

NOTES:

* Peak Headspace Reading, Photovac MicroTIP HL-2000

BGS - Below Ground Surface, BTOC - Below Top of Casing, f/c - fine to coarse, m/c - medium to coarse.

SOIL BORING/MONITORING WELL CONSTRUCTION LOG

Well/Boring ID: MW-3

Project Name: S.B. Collins/Milton Mid-Town Mobil	**WELL CONSTRUCTION**
Project Number: 04-04	Total Depth Drilled: 25' BGS
Driller: Tri-State Drilling & Boring	Screen Type/Interval: 2" PVC, 10-slot from 13.9 - 23.9' BGS
Drilling Method: 4.25" ID HSA	Sandpack Type/Interval: f/c sand, 12.0-25' BGS
Geologist: J. Hoffer	Riser Type/Interval: 2" PVC from -0.8 - 13.93' BGS
Sampling Method: 2" split spoon	Seal Type/Interval: bentonite gravel, 7.3-12.0' BGS
Date/Time Started: 11/2/93, 1420	Measuring Point/Stickup: top of PVC Casing, flushmount
Date/Time Completed: 11/2/93, 1630	Water Level/Date/Time: 17.85 feet BTOC, 11/3/93
Weather: 30 degrees, sunny, windy	Elevation of Top of PVC: 94.83' relative to on-site benchmark
Surface Conditions: pavement	Well Development: Air-displacement pump, 1/2 hour

Split-Spoon Depth (feet)	Sample Blows (per 6")	Sample Recovery (feet)	Sample Description (color, texture, etc.)	PID* Reading (ppm)
5 - 7	2/3/2/4	1.1	Brown medium/coarse sand, dry	0
10 - 12	4/4/8/9	1.0	Brown medium/coarse sand, dry (some Fe-mottling)	0
15 - 17	2/6/8/9	1.4	Top 1.0', brown silt loam, moist, mottled, petro odor Bottom 0.4', brown fine sand, moist	25.6
20 - 22	3/6/6/9	1.4	Top 0.4', brown silt loam, fine sand, wet Bottom 1.0', brown medium sand	0
25 - 27	3/4/4/10	1.8	Brown fine/medium sand, wet	0.1

GENERALIZED GEOLOGIC LOG and OTHER OBSERVATIONS

0-0.5' pavement and sub-base material
0.5 - 12' medium/coarse sands, dry
12 - 21' silt loam and fine sand, wet below 20'
21 - 27' fine/medium sand

NOTES:

* Peak Headspace Reading, Photovac MicroTIP HL-2000

BGS - Below Ground Surface, BTOC - Below Top of Casing, f/c - fine to coarse, m/c - medium to coarse.

SOIL BORING/MONITORING WELL CONSTRUCTION LOG

Well/Boring ID: MW-4

Project Name: S.B. Collins/Milton Mid-Town Mobil	WELL CONSTRUCTION
Project Number: 04-04	Total Depth Drilled: 20' BGS
Driller: Tri-State Drilling & Boring	Screen Type/Interval: 2" PVC, 10-slot from 9.3 - 19.3' BGS
Drilling Method: 4.25" ID HSA	Sandpack Type/Interval: f/c sand, 8.0 - 20' BGS
Geologist: J. Hoffer	Riser Type/Interval: 2" PVC from -0.18 - 9.3' BGS
Sampling Method: 2" split spoon	Seal Type/Interval: bentonite gravel, 4.0 - 8.0' BGS
Date/Time Started: 11/1/93, 1300	Measuring Point/Stickup: top of PVC Casing, flushmount
Date/Time Completed: 11/1/93, 1530	Water Level/Date/Time: 17.25 feet BTOC, 11/3/93
Weather: 30 degrees, snowing	Elevation of Top of PVC: 95.39' relative to on-site benchmark
Surface Conditions: gravel	Well Development: Air-displacement pump, 1/2 hour

Split-Spoon Depth (feet)	Sample Blows (per 6")	Sample Recovery (feet)	Sample Description (color, texture, etc.)	PID* Reading (ppm)
5 - 7	7/8/7/10	1.3	Brown medium/coarse sand, dry	0
10 - 12	4/6/7/7	1.4	Brown fine sand, dry	0
15 - 17	7/8/7/9	1.4	brown fine sand, moist in bottom 6"	0
20 - 22	2/2/2/4	1.0	Top 0.5', brown fine sand, wet Bottom 0.5', olive-brown silt loam, saturated	0

GENERALIZED GEOLOGIC LOG and OTHER OBSERVATIONS

0-0.5' pavement and sub-base material

0.5 - 7' medium/coarse sands, dry

10'--> brown fine sand, moist below 16.5 ft, silty at 21 ft

water table between 16.5 and 20 feet

NOTES:

* Peak Headspace Reading, Photovac MicroTIP HL-2000

BGS - Below Ground Surface, BTOC - Below Top of Casing, f/c - fine to coarse, m/c - medium to coarse.

SOIL BORING/MONITORING WELL CONSTRUCTION LOG

Well/Boring ID: MW-5

Project Name: S.B. Collins/Milton Mid-Town Mobil	**WELL CONSTRUCTION**
Project Number: 04-04	Total Depth Drilled: 22.5' BGS
Driller: Tri-State Drilling & Boring	Screen Type/Interval: 2" PVC, 10-slot from 12.3 - 22.3' BGS
Drilling Method: 4.25" ID HSA	Sandpack Type/Interval: f/c sand, 10.7 - 22.5' BGS
Geologist: J. Hoffer	Riser Type/Interval: 2" PVC from -0.57 - 12.3' BGS
Sampling Method: 2" split spoon	Seal Type/Interval: bentonite gravel, 4.9 - 10.7' BGS
Date/Time Started: 11/1/93, 1530	Measuring Point/Stickup: top of PVC Casing, flushmount
Date/Time Completed: 11/1/93, 1730	Water Level/Date/Time: 17.59 feet BTOC, 11/3/93
Weather: 30 degrees, snowing	Elevation of Top of PVC: 95.32' relative to on-site benchmark
Surface Conditions: pavement	Well Development: Air-displacement pump, 1/2 hour

Split-Spoon Depth (feet)	Sample Blows (per 6")	Sample Recovery (feet)	Sample Description (color, texture, etc.)	PID* Reading (ppm)
5 - 7	5/6/4/7	1.4	Brown medium/coarse sand, well sorted, dry faint mottling at 6'	0
10 - 12	1/4/2/3	1.2	Light brown medium/coarse sand, 5% fine gravel, dry	0
15 - 17	4/5/11/10	1.0	Light brown fine/medium sand, dry	0
20 - 22	10/6/7/11	1.2	Brown medium/coarse sand, wet, bottom 4" is silty fine sand, wet	0 0

GENERALIZED GEOLOGIC LOG and OTHER OBSERVATIONS

0-0.5' pavement and sub-base material

0.5 - 22' brown medium/coarse sands, dry to 17 ft, fine/medium sands 15 - 17 ft.

21' silty fine sand

water table between 17 and 20 ft

NOTES:

* Peak Headspace Reading, Photovac MicroTIP HL-2000

BGS - Below Ground Surface, BTOC - Below Top of Casing, f/c - fine to coarse, m/c - medium to coarse.

SOIL BORING/MONITORING WELL CONSTRUCTION LOG

Well/Boring ID: MW-6

Project Name: S.B. Collins/Milton Mid-Town Mobil	**WELL CONSTRUCTION**
Project Number: 04-04	Total Depth Drilled: 26' BGS
Driller: Tri-State Drilling & Boring	Screen Type/Interval: 2" PVC, 10-slot from 16.0 - 26.0' BGS
Drilling Method: 4.25" ID HSA	Sandpack Type/Interval: f/c sand, 15 - 26.0' BGS
Geologist: J. Hoffer	Riser Type/Interval: 2" PVC from 0 - 14' BGS
Sampling Method: 2" split spoon	Seal Type/Interval: benseal 12 - 14' & 1 - 2' BGS
Date/Time Started: 12/17/93 12:00	Measuring Point/Stickup: top of PVC Casing, flushmount
Date/Time Completed: 12/17/93 14:00	Water Level/Date/Time: 20.20' BTOC, 12/20/93
Weather: 30 degrees, sunny	Elevation of Top of PVC: = 96.13' relative to on-site benchmark
Surface Conditions: grass	Well Development:

Split-Spoon Depth (feet)	Sample Blows (per 6")	Sample Recovery (feet)	Sample Description (color, texture, etc.)	PID* Reading (ppm)
4 - 6	2/4/6/8	1.2	light yellow/brown medium/coarse sand, dry well rounded, no fines	0.8
9 - 11	4/5/4/6	1.2	as above with some fine sand	0.9
14 - 16	2/3/5/11	1.3	light brown medium sand, damp	2.0
19 - 21	4/7/7/10	1.5	light brown medium sand, one 1-inch layer of silt loam, saturated in last 1.0 feet	0.8
24 - 26	1/2/2/3	0.8	0.25' as above 0.75' fine sand	0.8

GENERALIZED GEOLOGIC LOG and OTHER OBSERVATIONS

0 - 25' brown medium sand, wet below 20'

25 - 26' brown fine sand

NOTES:

* Peak Headspace Reading, Photovac MicroTIP HL-2000

BGS - Below Ground Surface, BTOC - Below Top of Casing, f/c - fine to coarse, m/c - medium to coarse.

SOIL BORING/MONITORING WELL CONSTRUCTION LOG

Well/Boring ID: MW-7

Project Name: S.B. Collins/Milton Mid-Town Mobil	**WELL CONSTRUCTION**
Project Number: 04-04	Total Depth Drilled: 26' BGS
Driller: Tri-State Drilling & Boring	Screen Type/Interval: 2" PVC, 10-slot from 16.0 - 26.0' BGS
Drilling Method: 4.25" ID HSA	Sandpack Type/Interval: f/c sand, 15 - 26.0' BGS
Geologist: J. Hoffer	Riser Type/Interval: 2" PVC from 0 - 14' BGS
Sampling Method: 2" split spoon	Seal Type/Interval: benseal 12 - 14' & 1 - 2' BGS
Date/Time Started: 12/17/93 14:00	Measuring Point/Stickup: top of PVC Casing, flushmount
Date/Time Completed: 12/17/93 13:30	Water Level/Date/Time: 20.48' BTOC, 12/20/93
Weather: 30 degrees, sunny	Elevation of Top of PVC: 96.69' relative to on-site benchmark
Surface Conditions: grass	Well Development:

Split-Spoon Depth (feet)	Sample Blows (per 6")	Sample Recovery (feet)	Sample Description (color, texture, etc.)	PID* Reading (ppm)
4 - 6	2/4/4/6	1.3	yellowish brown medium/coarse sand, dry	1.6
9 - 11	4/12/11/13	1.1	brown medium/fine sand, dry	1.4
14 - 16	3/5/9/12	1.5	0.75' yellowish brown fine sand, dry, mottled 0.75' yellowish brown fine/med. sand, dry, mottled	1.7
19 - 21	2/3/3/4	1.5	0.75' brown fine/medium sand, wet 0.75' brown medium/coarse sand, wet	8.1
24 - 26	1/2/2/1	1.8	brown medium sand, wet, slight gas odor	91.3

GENERALIZED GEOLOGIC LOG and OTHER OBSERVATIONS

0 - 26' brown sand, predominantly medium-grained, wet below 19 feet

NOTES:

* Peak Headspace Reading, Photovac MicroTIP HL-2000

BGS - Below Ground Surface, BTOC - Below Top of Casing, f/c - fine to coarse, m/c - medium to coarse.

APPENDIX D:

Groundwater Sampling Data

GROUNDWATER SAMPLING DATA SHEET

PROJECT LOCATION: Milton Mid-Town Mobil, Milton, Vt
DATE: 11/9/93

SAMPLE METHOD: PVC Bailer Purge / Teflon Bailer Sample
SAMPLERS: JPH

WELL ID	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	WATER COLUMN (ft)	Gals/Foot (2" = 0.163) (4" = 0.653) (6" = 1.469)	3 Well Volumes (gals)	Total Purged (gals)	Sample Time	Sample Type	Chain-of-Custody Number	Chain-of-Custody Time (Field)	Remarks
Trip							Lab	Trip	TB-1	12:10	Lab - 11/8/93 4:47 PM
MW-1	18.77	25	6.23	1.0	3.0	3.0	12:40	S	MW-1	12:30	S.Hy Brown
MW-4	17.01	22.5	5.49	0.9	2.7	2.8	13:15	S	MW-4	13:00	Sl. Silty
MW-5	17.59	25	7.41	1.2	3.6	4.0	13:40	S	MW-5	13:40	Sl. Silty
MW-3	17.84	20	2.16	0.4	1.2	1.5	14:05	S	MW-3	14:00	Silty Brown
MW-3	"	"	"	"	"	"	"	dup	MW-6	14:45	Silty Brown
MW-2	18.69	25	6.31	1.0	3.0	3.0	14:30	S	MW-2	14:59	Silty Brown *
Field							15:00	Field		16:00	

* REMARKS: Sunny, Windy, 45°C

* Slight petro odor, no sheen on purge water

SCITEST
LABORATORY SERVICES

Results by Nov. 19

CHAIN OF CUSTODY RECORD

PROJ. NO. | PROJECT NAME: SB Collins/Midtown Mobil Milton, Vermont

SAMPLERS: (Signature)

Bill To:
Carl Ruprecht
S.B. Collins, Inc.

REMARKS
54 Lower Welden St.
St. Albans, Vt

STA NO	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	8020 BTEX/MTBE
TB-1					Trip Blank	2	
MW-1	11/9/93	12:30			MW-1		
MW-4		13:00			MW-4		
MW-5		13:40			MW-5		
* MW-3		14:00			MW-3		
* MW-6		14:45			MW-6		
* MW-2		14:59			MW-2		
FB-1		16:00			Field Blank		

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
	11/9/93 16:25				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature) Jim Morin	Date / Time 11/9/93 16:25	Remarks 3-2051	

LABORATORY REPORT

CLIENT NAME:	S.B. Collins	LABORATORY NO.:	3-2051
ADDRESS:	54 Lower Welden Street St. Albans, VT 05478	PROJECT NO.:	70249
		DATE OF SAMPLE:	11/9/93
		DATE OF RECEIPT:	11/9/93
SAMPLE LOCATION:	Midtown Mobil, Milton, VT	DATE OF ANALYSIS:	11/19-21/93
ATTENTION:	Carl Ruprecht	DATE OF REPORT:	11/30/93

WATER RESULTS

(Expressed as micrograms per liter [ug/L] ppb)

PARAMETER	MW-1	MW-2	MW-3	MW-4	MW-5
Methyl Tertiary Butyl Ether	BPQL	25600	64	BPQL	3
Benzene	BPQL	1920	4	BPQL	BPQL
Toluene	BPQL	4100	4	BPQL	3
Ethylbenzene	BPQL	1430	BPQL	BPQL	BPQL
Total Xylenes	BPQL	6800	BPQL	BPQL	BPQL
Chlorobenzene	BPQL	<500	BPQL	BPQL	BPQL
1,2-Dichlorobenzene	BPQL	<500	BPQL	BPQL	BPQL
1,3-Dichlorobenzene	BPQL	<500	BPQL	BPQL	BPQL
1,4-Dichlorobenzene	BPQL	<500	BPQL	BPQL	BPQL
Surrogate % Recovery	94%	92%	92%	92%	95%

EPA Method 8020

BPQL = Below Practical Quantitation Limit, 2 ppb.

Respectfully submitted,

SCITEST, INC.

Roderick J. Lamothe
Laboratory Director

cc: Jefferson Hoffer
RJL/mh

SCITEST
LABORATORY SERVICES

LABORATORY REPORT

CLIENT NAME:	S.B. Collins	LABORATORY NO.:	3-2051
ADDRESS:	54 Lower Welden Street St. Albans, VT 05478	PROJECT NO.:	70249
		DATE OF SAMPLE:	11/9/93
		DATE OF RECEIPT:	11/9/93
SAMPLE LOCATION:	Midtown Mobile, Milton, VT	DATE OF ANALYSIS:	11/19-21/93
ATTENTION:	Carl Ruprecht	DATE OF REPORT:	11/30/93

WATER RESULTS

(Expressed as micrograms per liter (ug/L) ppb)

PARAMETER	MW-6	Field Blank	Trip Blank	Matrix Spike MW-1
Methyl Tertiary Butyl Ether	64	BPQL	BPQL	---
Benzene	4	BPQL	BPQL	92%
Toluene	3	BPQL	BPQL	96%
Ethylbenzene	BPQL	BPQL	BPQL	89%
Total Xylenes	BPQL	BPQL	BPQL	---
Chlorobenzene	BPQL	BPQL	BPQL	91%
1,2-Dichlorobenzene	BPQL	BPQL	BPQL	87%
1,3-Dichlorobenzene	BPQL	BPQL	BPQL	86%
1,4-Dichlorobenzene	BPQL	BPQL	BPQL	85%
Surrogate % Recovery	92%	93%	93%	94%

EPA Method 8020

BPQL = Below Practical Quantitation Limits; 2 ppb.

NOTE: Matrix spike expressed as percent recovery at 23 ppb spike in MW-1.

SCITEST
LABORATORY SERVICES

Scitest, Inc.

Route 66 Professional Center, Randolph, Vermont 05060
Phone:(802)728-6313 Fax:(802)728-6044

CHAIN OF CUSTODY RECORD

Sheet 1 of 1

Project Name/Location: Milton Midtown Plaza Mobil

Company Name: S B Collins
541 Lower Welden
Company Address: St. Albans Vt 05478
Attn: Carl Ruprecht

Copy Results to: Jeff Hoffer

Project Number:
P.O. Number:
Phone:
Fax:

Project Manager: Jeff Hoffer
Scitest Acct #:

Sample Number	Sampling Date	Sampling Time	Client Sample I.D.	Containers (number/type)	Matrix/ Source	Analysis Requested
TB-1	12/1/93	4:01 PM	Trip Blank - Lab	1 40 mL	W	8020 BTEX/MTBE
MW-6	12/20/93	0830	MW-6	2 40 mL	W	8020 BTEX/MTBE
MW-7	12/20/93	0850	MW-7	3 40 mL	W	8020 BTEX/MTBE

Sampler's Signature: Jeff Hoffer

Additional Comments:
MW-7 - gasoline odor in purge water

Number	Relinquished By	Date	Time	Accepted By	Date	Time
1	Jeff Hoffer	12/20/93	15:13			
2						
3				Jim Moore	12/20/93	3:10 pm

Turn-Around-Time: [X] Normal [ ] Rush Due Date

GROUNDWATER SAMPLING DATA SHEET

PROJECT LOCATION: SBC/Midtown Plaza Mobil, Milton, WI SAMPLE METHOD: Teflon Bailer
DATE: 12/20/93 SAMPLERS JPH

WELL ID	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	WATER COLUMN (ft)	Gals/Foot (2" = 0.163) (4" = 0.653) (6" = 1.469)	3 Well Volumes (gals)	Total Purged (gals)	Sample Time	Sample Type	Chain-of-Custody Number	Chain-of-Custody Time	Remarks
TB-1								Trip	TB-1	12/1/93	4:01 PM
MW-6	20.20	24	3.80	0.6	1.8	2.0	0830	Sample	MW-6	0830	(1)
MW-7	20.48	24	3.52	0.6	1.8	2.0	0850	Sample	MW-7	0850	(1) (2)

* REMARKS (1) Sample slightly silty Brown
(2) Slight gasoline odor in purge water, no sheen